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THE
OUTHERN FOREST RANGERS COLLEGE
MAGAZINE

l. 48 ANNUAL 1972

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COVER PHOTO

A pair of record size elephant tusks, the gift of the Government of Tamilnadu to the Southern Forest Rangers College Mess (displaying the photos of Shri Jawaharlal Nehru and Smt. Indira Gandhi in a stand) - Shri K. A. Bhoja Shetty, I.F.S., Chief Conservator of Forests, Tamilnadu, presents and Shri S. K. Seth, I. F. S., President, F. R. I. and Colleges, Dehra Dun, receives.

SOUTHERN FOREST RANGERS COLLEGE

Chairman :
A. M. MAHMOOD HUSAIN, I. F. S.,
Principal

Editor :
M. HARIKRISHNAN, I. F. S.,
Instructor

Joint Editor :
T. RAJAMANNAR
Assistant Instructor

Annual - 1972

MAGAZINE

THE SOUTHERN FOREST RANGERS COLLEGE MAGAZINE

Vol. 48 ANNUAL 1972

Editorial

MEN, MATTERS AND MEMORIES

Thanks to the previous issue of magazine covering the years 1970 and 1971, we are no longer in arrears. This editorial note need therefore confine itself only to the period subequent to October, 1971. Enrolment of associate members and advertisements have augmented our income, but finances are still not quite satisfactory.

We had proposed to open a section devoting a few pages of this magazine to news of former students of the eollege. The alumni corner opened for the purpose has necessarily had to get off to a tentative start, for last year's appeal to provide us with news has had little response. A tentative beginning is nevertheless an advance, and one hopes fondly for a restoration of the alumni column to its former glory. We earnestly request our associate members to be liberal in giving us the information needed to make this possible.

We also take this opportunity to express our gratitude and appreciation of the services rendered by Shri M. Sivarajan, I. F. S. As Editor of this magazine he was instrumental in bringing the periodical uptodate. He left the college in January on promotion as Conservator of Forests in his home state of Kerala. We congratulate him on his promotion and wish him all the best in the life ahead of him.

The second tour was to Arienkavu, Asaripallam, Lower camp (Gudalur) and Kodaikanal. This tour was from 2—3—72 to 27—3—72. In the course of this tour the students became conversant with forestry practices in the tropical moist deciduous and evergreen forests; and with the raising of commercial plantations in the temperate hill forests of the Upper Palnis.

The third tour was to Topslip from 24—4—72 to 7—5—72. This tour included the Survey Practical Examination, conducted under forest conditions and meant to give the students an idea of survey work in their career. There was also an innovation in the form of an orienteering exercise, a fascinating adventure that involves proficiency in map reading and finding one's way through the forest.

The final tour for the juniors was from 10—8—72 to 26—8—72 to camps at Neyveli, Arimalam (near Pudukkottai in Tiruchirapalli district) and Rameswaram. From these camps excursions are conducted to provide practical knowledge about the techniques of raising and maintaining man-made forests in areas where the North-East monsoon is prevalent.

As in 1971, both Seniors and Juniors had a short mid-term vacation, from 10—5—72 to 26—5—72.

The Sports Scene:

The annual athletic sports were held on 20—2—1972. LCDR T. P. Nair, Officer commanding I. N. S. Agrani presided over the function, Mrs. Nair distributed the prizes. A detailed account of this event with photographs appears elsewhere in this issue.

The annual Marathon race was held on 24—12—1971. Shri C. S. Sharma of the 1971—72 Rangers' Course won the Mannarghat Moopil Nair Cup, finishing the distance of 8 miles in 50 minutes and 49 seconds.

As usual, inter-divisional tournaments were held in hockey, football and volleyball. The tennis tournament for both singles and doubles, was also held. Fredrick Liew of Malaysia won the Fischer Cup for tennis singles and added the doubles title also to an imposing list of trophies in many fields of athletic activity.

CONVOCATION — 1971

The twenty-third Annual Convocation of the College was held on 31—10—1971. The large gathering of distinguished invitees included both officials and non-officials. Shri Hejmadi, Deputy Inspector General of Forests, presided over the function and distributed prizes and certificates to outgoing students of the 1969—71 course. A detailed account of the Convocation proceedings appears elsewhere in this issue. With the passing of 71 student trainees of the 1969—71 course the total number of students passed comes to 2,473.

College Assosiation Day — 1972

The annual Day for the academic year 1971—72 was celebrated on 4—8—1972. Not many institutions can claim the almost kaleidoscopic variety of cultural displays that make up the entertainment programme presented on such occasions. Shri J. Shivakumar, I. A. S., Collector of Coimbatore district, presided over the function. The function begun with tea and light refreshments served in the Mess Lounge Hall. Shri A. M. Mahmood Husain, I. F. S., Principal and Vice-President of the College Association, gave a welcome address to the chief guest and the rest of the gathering. The General Secretary then presented the Annual Report. The Chief Guest, Shri J. Shivakumar, then addressed the gathering in a delightful speech liberally laden with humour.

The programme of variety entertainment was presented in the old Mess Hall to rule out any disturbance on account of rainy weather. Students of different cultures, states and nationalities vied with each other in providing the diverse regional specialities constituting the entertainment. The items included three hilarious dramatic skits, one each in English, Tamil and Hindi. There were also other items like the Punjabi Bhangra Dance, the Mysore Kolatta Dance, the Sri Lanka Baila Dance, the Maharashtra fisher-folk dance, a delightful guest item and pieces of light music. Shrimathi Husain distributed prizes to the winners of the various indoor games tournaments (table tennis, carroms and chess), other sports and variety entertainment programmes. An enjoyable evening was brought to a close with a vote of thanks followed by the National Anthem.

Staff:

The following changes took place in the staff of the College since 1—11—1971.

people have managed to create a god-fearing attitude in the public mind towards the killing of certain animals, such as the spotted deer and peacock. This is illustrated by a herd of spotted deer belonging to the Koneshwara temple forest in Trincomalee that freely moves about even in the town playgrounds without the slightest fear.

Ever since the country was colonized there has been a steady decline in the number of birds and animals. Part of this decrease has been brought about by the vast clearing of forests for cultivation under special lease boards and another part by ruthless killing in the time of British rule.

Despite all these adverse factors, Srilanka—in proportion to its size—possesses a rich and varied collection of wild life that could captivate any visitor. Thanks to the satisfactory mananagement of wild life—unlike several other countries—no wild animal in Srilanka is on the verge of extinction.

Protection and Management:

Conservation of wild life is most effective when operated on an ecological basis. Ecological systems are ideally kept in stable but dynamic equilibrium unless upset by natural causes or, as is more often the case in practice, by human interference. Protection to Srilanka's wild fauna is given mainly in national reserves and sanctuaries. The national reserves first proclaimed in 1938 now occupy about 1,123 sqare miles and consist of :

(1) Four (4) strict national reserves.

In these the fauna and flora are left completely undisturbed. Admission is strictly prohibited except for research.

(2) Three (3) national parks totalling 401 square miles are areas into which the public is admitted on production of passes ; the public can study and observe fauna and flora in these areas.

(3) Six intermediate zones totalling 487 square miles in which shooting is prohibited during closed season. These are open to photography.

The two large strict national reserves are 111.6 and 112.5 square miles in extent. The remaining two, which are very small areas of 55 and 4 square miles, are essentially floristic reserves; one possessing the characteristic flora of the highest mountain zones, and the other the distinctively mixed and unusual flora of

a mountain in the arid zone. A strict national reserve may be a primarily localised area extending over the habitat of a species in danger of extinction or requiring special protection; and which needs to be completely isolated from and undisturbed by man in order to enable it to rehabilitate and survive.

National Parks:

There are two famous national parks, Willpattu national park (212 square miles) and Yala national park consisting of two blocks totalling 91 square miles. Topographically they are strikingly divergent but equally picturesque and attractive in their different ways.

The Yala is bounded by the sea. A large extent of the park country has picturesque rocky hills rich in ancient ruins. By contrast the Willpattu park has only a few rocky outcrops and hills; its characteristic feature is sandy stretches with 26 natural lakes varying in size and beauty, two being salt water lakes and the other fresh water lakes. In Willpattu elephants are fewer than in Yala but bears are much more numerous. A few tuskers are still found in both the parks. Walking within the park is normally prohibited but vehicles are allowed. The animals have ceased to exhibit alarm at the passage of motor vehicles as they have realised that no harm can come to them from the vehicles or the passengers inside them.

In these parks peafowl are most tame while spotted deer move away only short distances from the vehicles to resume their grazing. Buffaloes wallowing in waterholes barely raise their heads to look at visitors and elephants are liable to behave in an unconcerned manner—to the great concern of visitors!

Other animals found are Sambur, wild boar, leopard, porcupine, crocodiles, hares, jungle-fowl, etc. Birds of varied plumage and description also found in rich profusion and of these the more fascinating are the painted storks. Many opportunities are available for the observation of animal behaviour, enumeration of animals and ecological studies of wild life. Elephants and buffaloes are likely to make hostile demonstrations.

The six intermediate zones are next to the sanctuaries and national parks or national reserves.

Sanctuaries include private lands and have been established

(1) to prevent killing in relegious places like Anuradhapura and Mihintale;

(2) as bird sanctuaries;

(3) as buffer or protection zones.

The list of birds, beasts and reptiles that are totally protected includes 22 species of birds, 5 species of beasts and one reptile. Six birds are migrants which visit Srilanka from September to April.

Protected birds and animals include the following :

Elephants, bears, leopards, buffaloes, black monkeys (liontailed macaque ?) hillmyna, junglefowl, peafowl, green pigeons, and a distinctive reptile known as the "kabara". a giant lizard.

Absolute protection is also given to certain trees which have historical associations and also to some orchids.

Poaching :

Poaching occurs mostly during drought, in jungles close to the villages and along the banks of perennial rivers in dry zones, even though for wild life offences compulsory imprisonment is given on convinction without the option of a fine. The possession of dried or fresh meat of scheduled species is also an offence. Wildlife officers can even search houses to arrest persons in possession of wild meat.

In spite of such strict provisions, the poacher accounts for a greater part of the wild life depletion in most regions. Still worse is the "market" hunter because he kills birds and animals for commercial purposes. Commercialization of all forms of wild life is prohibited in Srilanka. Due to these hunters the Hog deer is seriously endangered like the blackbuck in India.

The wildlife of Srilanka is a resource of unique value. It must be preserved both as an object of study and as a necesssary basis for proper land use policies. Not the least of the reasons is that an increasing number of people from all over the world find unique satisfaction and interest in it as a spectacle.

Twenty Third Convocation of the Southern Forest Rangers College - 1971

The Annual Convocation of the Southern Forest Rangers College for the passing-out Ranger trainees of 1969-71 Batch was held at the Forest College, Coimbatore, on 31st October, 1971, at 4-30 p. m.

The Chief guest **Prof. SHER SINGH**, Union Minister of State for Food and, Agriculture, could not be present for reasons of health. Sri S. A. Hejmadi I. F. S., Dy. Inspector General of forests, was received at the portico by Sarvashri S. K. Seth, I. F. S., President, Forest Research Institute and Colleges, Dehra Dun, Sri H. C. Day, I. F. S., Director of Forest Education, Dehra Dun, Shri K. A. Bhoja Shetty, I. F. S. Chief Conservator or Forests, Tamil Nadu and Sri A. M. Mohamood Husain, I. F. S., Principal. Soon after arrival he inspected a guard of honour presented by the students of the Southern Forest Rangers College, and then was escorted to the dias which was tastefully decorated.

Welcoming the Chief guest **Sri S. K. SETH,** I. F. S., President, Forest Research Institute and Colleges, Dehra Dun spoke as follows :

Ladies and Gentlemen,

I regret to announce that due to circumstances beyond control, Prof. Sher Singh, Minister of State for Agriculture and Forests, who was to have delivered the Convocation Address, has not been able to come. We very much miss the presence of such a distinguished educationist on this occasion.

It gives me a great pleasure to welcome you all, ladies and gentlemen, who have graced this occasion by your presence in large number. It has not only

added colour to this occasion, but is a token of social recognition of the profession of proficiency, represented by the young foresters passing out today.

This College has a long history. It was established in 1912 by the Government of Madras to train Forest Rangers for Madras State and neighbouring Southern States. After independence, in July 1948, the College was taken over by the Government of India under its own management and control. Centralised forest training is in accordance with the National Forest Policy, because it ensures much desired uniformity in standards of training, outlook, understanding and implementation of various developmental programmes in different parts of the country. Above all, it establishes a very desirable "espirit-de-corps" among the personel working in different parts of the country.

Later in 1959, a Research Branch consisting of 4 sections, viz., Silviculture and soil Science, Entomology, Mycology and Botany with the object of facilitating a closer study of the problems of this region was started. The College and the Research Centre are under the administrative control of the President, Forest Research Institute and Colleges, Dehara Dun.

It is gratifying to note that ever since 1912, the College has continued to train Forest Rangers except for a short break of six years (1939 to 1945) and the total number trained, including those who are passing out today, is 2,473. This includes a number of foreigners deputed mostly from Ceylon, South East Asian and South African countries. The training, being broad-based, aptly meets the needs of developing countries.

Ours is a vast country, making rapid strides towards industrial development. Wood is one of the main struts of the structure, called civilization and so far as can be foreseen, there will always be a sustained, even growing demand for wood and its derivatives. Forests, however, are necessary not only for meeting the needs for timber, but for the preservation of soil water and climatic values too. Apart from the material and functional benefits from forests the cultural, scientific, bioesthetic and recreational value of Nature and natural resources, are of considerable importance. According to the International Union for Conservation of Nature and Natural Resources, nature conservation can best be defined as the rational use of earth's resources (viz. plants, animals, the soil, water, air and other natural wealth) to achieve the highest quality of living for mankind in perpetuity. The country to day is greatly concerned at the progressive decline and in some cases decimation of our Wild life. Only the Most stringest measures

could halt the impending calamity, and this task, the foresters, who are the chief custodians of wild life, have a crucial function to perform.

These are some of the challenges which confront the present day forester and those connected with forestry. Forestry to day is much different than what it was 30 to 40 years ago, but with dynamism in our outlook we are certain that we would be able to meet this challenge.

Such is the task before you youngmen, who are entering the profession today. You have to be scientists, administrators, policemen, lawyers and publicists. You are the king-pin of the department. You will always be in intimate contact with the people. Their uplift, their welfare, and improvement of their living standards should be as much your responsibility as the conservation of the forests.

I congratulate you all for having successfully completed the 2 years of arduous training and thus embarking on your forest career. I have every hope that you will fulfil all our expectations and serve the country well and truly. I wish you a very successful and happy life and a career full of achievements.

I now call upon the Director of Forest Education to present his report.

* * * *

Then the Annual Report on the working of the Southern Forest Rangers College, Coimbatore, for the year 1970-71 was presented by Shri H. C. Day, I. F. S., Director of Forest Education, Forest Research Institute and Colleges, Dehara Dun, as follows:

ANNUAL REPORT ON THE WORKING OF THE SOUTHERN FOREST RANGERS COLLEGE, COIMBATORE FOR THE YEAR 1970—71

Forestry training in India at the professional and technical level is under the control of the Ministry of Agriculture, Government of India. The system of education is devised and oriented from time to time to fit the trainees in the jobs, they are required to perform as public servants after completion of the training. A high sense of devotion and 'espirit de corps' are aimed at, befitting the forest service particularly at the Rangers' level.

The southern Forest Rangers College and the Research Centre at Coimbatore meets the requirements of Forest Rangers for the States situated south of Madhya Pradesh and including it. In addition, trainees from South East Asia and African countries are also admitted. The training being broad-based, aptly meets the needs of these countries.

Strength of Trainees:

To start with, 1969-71 batch had a strength of 73 trainees, including 5 students relegated from 1968-70 course to repeat the first year. Out of 73, 2 students from Nigeria (deputed under SCAAP Plan of Government of India) were transferred to Indian Forest College, Dehra Dun for training, leaving the final total to 71, who are passing out today. 83 trainees are in 1970-72 course, thus 154 trainees were on the rolls of the College during the year under repot.

The passing out batch includes 4 students from Ceylon and 1 from Malaysia under the Colombo Plan.

In addition, we have also 4 students from Ceylon and 2 from Malaysia undergoing training in 1970-72 course. Since taking over the administration of the College by the Government of India, 2,473 Rangers have been trained.

Course of Studies:

In the present context of technological development in all fields it is becoming absolutely necessary to devise a course of studies which acquaint the students with the problems and methods concerning the right use of land, the scientific and economic basis which underlies the industrial bias of land-use so that he can find his occupation both valuble to the community and congenial to himself.

The duration of the course remained 2 years and the academic year of the College from 1st November to 31st October.

A comprehensive and balanced professional education is imparted covering Silviculture, Forest Mensuration, Elementary Forest Management, Forest Utilization, Forest Protection, Forest Botany, Survey and Drawing, Forest Engineering Forest Law, Forest Accounts and Procedure, Soil Conservation and Land Management, Wild Life Management apart from allied subjects of Soil Science, Elementry Physiography and Geology.

Since the Forest Ranger is the chief executive in the fields, a great emphasis on practical and field work was ensured during the course of training. Tours form an important part of the training programme where theoritical coverage is illustrated in the various forest practices. Every week-end was utilised in field exercise and observation to clear their ideas. Besides, they were taken on long duration tours (4 to 6 weeks) in the forests of the states from which the trainees were drawn. This naturally includes forests under different forest types and management methods, adopted under different conditions and the activities in forestry in all aspects. On tours, they had to actually carryout the various silvicultural and other operations which helped them to develop skill and self-confidence. The trainees also visited a number of wood-based indus tries so as to get a better appreciation of the problem relating to the manufacture and end-uses of forest products. In course of the tours, opportunities were always availed of visiting Sanctuaries, National parks and Zoological parks to equip them with the field knowledge of management of wild life. A three-week course in Field Engineering and Weapon Training with Madras Engineer Group and Centre at Bangalore was given in July 1971. It is a regular feature, and provided an extremely useful practical exercise in construction of bridges and other engineering structures. Thus about 40% of the total training period of 2 years was devoted in field while the balance 60% in theory lectures at the head-quarters.

To enable confidence in handling emergent situations, a course of lectures was given on "First Aid", leading to the award of certificates of St. John Ambulance Association.

A series of lectures on Public Relations were arranged for.

Weapon training is also imparted through the courtesy of Madras Engineer Group and Centre at Bangalore.

Examinations and Tests

The final examinations in all the subjects were conducted by senior officers from the different States in the country.

Physical Training, Drill and Sports

To build-up physique, stamina and endurance, necessary to with-stand hard work in forests, regular P. T. in the early hours of the morning and games and sports in the evening formed part of the training programe.

The Annual Sports were held on January 17, 1971 Sri T. S. Avanashilingam Chettiar, Founder President of Sri Avinashilingam Home Science College, Coimbatore presided and took the salute at the march-past. The championship cup was won by Fredrick Liew from Malaysia (1970-72 course). The annual cross-country Marathon Race extending over a distance of 8 miles was run by each student on 21-3-71, I am happy to announce that A. R. Mansoori of 1970—72 course came first and he is being awarded the Mannarghat Moopil Naik cup today.

Health

The general health of the trainees on the whole remained satisfactory. The Medical officer, Lawley Road Government Dispensary and District Medical Officer of Health continued to provide the necessary medical facilities.

Co-Curricular Activities

A hign degree of discipline, good conduct, sense of duty and responsibility are essential ingredients of a public servant. The trainees are made aware of the code of conduct and discipline that is being maintained ever since the College came into being.

To ensure a comprehensive personality development, the individuality of the trainees was allowed to have its full play through co-curricular activities organised under different sections of Southern Forest Rangers College Association viz. Library and Science, Sports Section, Magazine Section, Cemera Club, Common-room Section and Wild Life Section. A common mess continued to be run under the management of an elected mess-committee of the students guided by the staff of the College. This enabled the trainees to develop a sense of mutual tolerance to lead a harmonious community life and to run their own affairs collectively, in a spirit of good-will and forbearance.

Museum Library and Audio Visual Aid

During the year, over 60 books were added to the College library. A number of magazines, papers and technical journals were continued to be subscibed for.

Models, charts, photographs etc. in the Gass Museum were used as aids in teaching.

Recently a sophisticated over-head projector was donated by Swedish International Development Authority, which is being used as an excellent visual aid in teaching. A stock of slides and film strips need to be built-up. This is receiving attention.

Buildings

With the construction of a hostel for 200 students and a new mess-building, a long felt need has been satisfied. The completion of water-supply scheme will relieve the acute shortage of water. Further requirement of buildings chiefly comprise of a Forest Rest House, an additional lecture-hall and residential accommodation for the staff, which presently is in-adequate.

Staff

During the year, there was no change among the instructional staff.

Acknowledgements

Training of Forest Rangers involves multifaced and complex activities calling for a great cooperation and coordination from a number of agencies. Efficiency in this task will be impossible without the active cooperation and help of the agencies concerned. For all the help and cooperation rdendere to us, I take this opportunity to express our gratitude to the Heads of the State Forest Departments and their staff.

I also thank Mrs. Bapayya for agreeing to deliver lectures on cooperation to the Sr. students.

We are also grateful to the Railway authorities and transport agencies for rendering help in conducting tours and excursions.

The Field Engineering course would not have been possible without the kind cooperation of the Commandant, Madras Engineers Group and Centre, Bangalore. The prompt and efficient rendering of medical-aid to the students and staff of the College by the Medical Officer, Government Dispensary Lawley Road and the District Medical Officer, Coimbatore is thankfully acknowledged.

I thank the Principal and the staff of the College and the Research Centre for having conducted the training so efficiently.

Message to The Out-Going Students

My dear students - soon you will be leaving this College and will disperse over your respective States and countries and will be assuming charge of your assignments. I congratulate you on your success. You have achieved your first objective of passing out from this College. Your training is over while your education begins. Knowledge has been imparted to you wisdom you will gain by experience, as a forester of the future, you will have to deal with much more complicated and difficult situations. It will require all your knowledge, wisdom and the highest quality of judgement to solve the problems of a rapidly progressing technology. As a true public servant, you are answerable to the people whom you must aspire to serve with a true sense of dedication and devotion. No public servant can remain successful and achieve great height without taking into confidence of the people.

All over the world, there is trend that foresters have hither-to remained isolated from the general trend of thoughts and actions of the people at large and if forestry is to succeed and to have an impact on the national economy, foresters must move out from their shells and sell forestry. Your attitude towards your subordinates can best be expressed in the words of a great philospher "If they sin, I am also a sinner; if they do well, I take pride in their well doing; if they rise, I rise with them; if they stay innert, I share their slothfulness".

Develop a real love for nature with the birds, the animals and the flowers in the forests. "A man who does not love nature is a disappointment to me, I am liable to mistrust Him" these words were not spoken by a forester or by an agriculturist but by a great politician Bismark. Without developing a true love for nature, you will not enjoy the profession and the life that you have chosen for yourself.

To our students from foreign countries, I would like to mention that we have been very happy to have you with us. You have joined a brotherhood, the bonds of which are never broken. Keep in contact with us. We are here to share your success and your failures. I wish you good luck and God speed.

* * * *

Then Shri A. M. Mahmood Husain, I. F. S. Principal, Southern Forest Rangers College. Coimbatore, announced the results as under:

Respected Sir, Ladies and Gentlemen,

I am glad to announce that out of the 71 students who appeared for the final examinations, all have qualified for Higher Standard Certificates.

I shall now call up the names of the students in the order of merit, and they will please come forward to receive the certificates from Shri S. A. Hejmadi Deputy Inspector General of Forests, Government of India, Ministry of Agri culture (Department of Agriculture) New Delhi. I now request you, Sir, to kindly award the certificates and prizes.

S. No.	Name of Student	State
	IN ORDER OF MERIT:	
	Honours: Nil.	
	Higher Standard:	
1.	V. Sonis	Madhya Pradesh
2.	C. Kandakrishnan	Tamil Nadu
3.	V. Beera Moidin	Mysore
4.	M. Thirugnam	Tamil Nadu
5.	Abdul Subhan	Mysore
6.	B. M. Thimmiah	Mysore
7.	V. D. Rakhe	Maharashtaa
8.	R. T. Ganbavale	Maharashtra
9.	T. K. Kulkarni	Maharashtra
10.	G. S. Hegde	Mysore
11.	N. Noor Mohammed	Tamil Nadu
12.	D. A. Samant	Maharashtra
13.	K. P. Divakar	Mysore
14.	M. A. Potey	Maharashtra
15.	V. D. Patil	Maharashtra
16.	T. Krishnakumara	Mysore
17.	H. K. Soni	Madhya Pradesh
18.	K. K. Sharma	Madhya Pradesh
19.	H. Maddodi	Mysore
20.	R. Khaji	Mysore
21.	S. B. Sadhani	Mysore
22.	K. M. Birari	Maharashtra
23.	G. M. Bangar	Maharashtra
24.	A. W. Dhope	Maharashtra
25.	H. J. Bhandary	Mysore
26.	U. A Naik	Maharashtra
27.	G. N. Salunkhe	Maharashtra
28.	A. Chandran	Tamil Nadu
29.	G. S. Naik	Maharashtra
30.	{ A. B. Khot M. F. Mahmood	Maharashtra Maharashtra
32.	{ P. R. Shinde S. G. Raoot	Maharashtra Maharashtra
34.	A. G. Mahajan	Maharashtra
35.	W. M. Phansalkar	Maharashtra
36.	S P. Pandey	Madhya Pradesh
37.	S. K. Khatri	Madhya Pradesh
38.	R. C. Saxena	Madhya Pradesh
39.	B. P. Singh	Andamans
40.	S. G. Naik	Mysore
41.	G. Nagarajan	Tamil Nadu
42.	A. G. Kalekar	Maharashtra
43.	T. Pandian	Tamil Nadu
44.	R. Nagaraja	Mysore
45.	S. L. Pansare	Maharashtra
46.	M. Ramachandran	Madhya Pradesh
47.	M. Chaturvedi	Madhya Pradesh
48.	R. Krishnamoorthy	Tamil Nadu
49.	G. A. Mujawar	Maharashtra
50.	K. Rangaswamy	Mysore
51.	Abdul Ravoof	Mysore
52.	S. Y. Gawade	Maharashtra
53.	{ A. D. Inamdar R. N. Kadu	Maharashtra Maharashtra
55.	A. Dubey	Madhya Pradesh
56.	S. N. Sharma	Madhya Pradesh

S. No.	Name of Student	State
57.	A. B. Bhusari	Maharashtra
58.	V. G. Patil	Maharashtra
59.	N. T. Umrani	Maharashtra
60.	M. N. Sanu	Mysore
61.	K. N. Chandnani	Maharashtra
62.	A. K. Dimari	Madhya Pradesh
63.	M. R. Mahawadi	Madhya Pradesh
64.	P. D. Talodhikar	Maharashtra
65.	R. C. Chowksey	Madhya Predesh
66.	P. M. Bhosekar	Maharashtra

Lower Standard : Nil.

Students from Foreign Countries Deputed under Colombo Plan

Higher standard :

In Order of Merit :

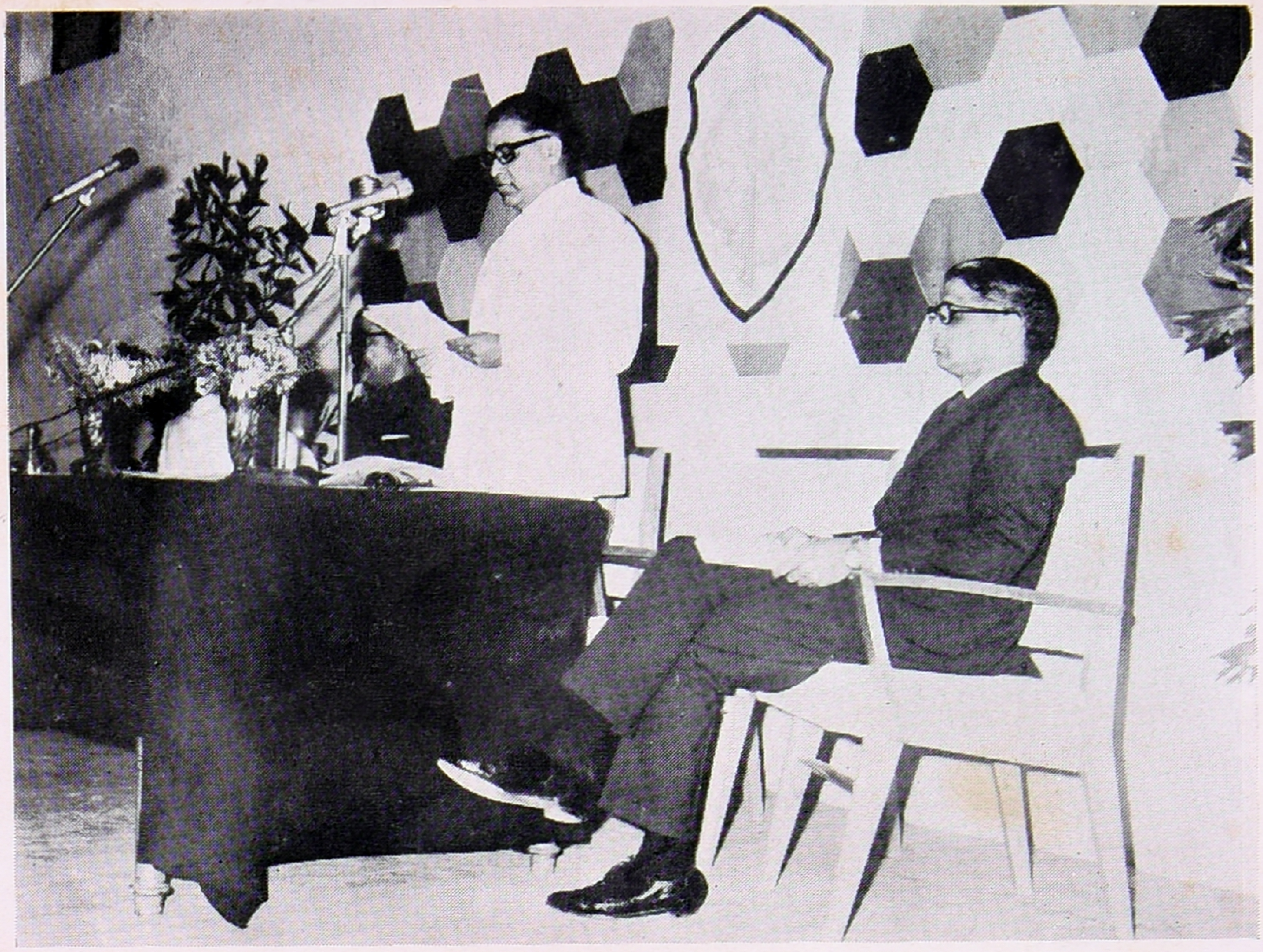
S. No.	Name of Student	State
1.	W. B. J. De Silva	Ceylon
2.	I. Timbah	Malaysia
3.	W. D. Fernando	Ceylon
4.	S. Thompson	Ceylon
5.	P. A. C. Gunaratne	Ceylon

PRIZES AWARDED TO 1969 — '71 RANGERS COURSE

Sl. No.	Name of Prize	Name of Winner	State
1	**Honours Gold Medal**	Nil	Nil
2	**Master's Rolling Cup** (For the topmost student who does not get honours Gold Medal)	V. Sonis	Madhya Pradesh
3	**The Campel Walker Prize** (For Forestry)	V. Sonis	Madhya Pradesh
4	**The Brazier Prize** (For the best outdoor Ranger)	M. Thirugnanam	Tamil Nadu
5	**The Lodge Prize** (For Forest Engineering)	V. Sonis V. Beera Moidin	Madhya Pradesh Mysore

Sl. No.	Name of Prize	Name of Winner	State
6	**College Silver Medal** (For Forest Utilization)	V. Sonis	Madhya Pradesh
7	**College Silver Medal** (For Forest Botany)	M. A. Potey	Maharashtra
8	**College Silver Medal** (For Range Administration)	M. Thirugnanam	Tamil Nadu
9	**The Stracey Prize** (For Wild Life Management)	S. L. Pansare	Maharashtra
10	**The Indian Forester Prize** (Topmost Student who does not get any other Prize)	Abdul Subhan	Mysore
11	**Hajee Mohamad Khan's Rolling cup** (For the best student from Tamil Nadu or Mysore State)	C. Kandhakrishnan	Tamil Nadu
12	**The Parvathy Kurup'S Rolling Shield** (For the healthiest student during the year)*	A. D. Inamdar	Maharashtra
13	**The Pentand Shield** (For the best all-round sportsman)	M. Chaturvedi (1969-71 Rangers Course)	Madhya Predesh
14	**The Mannarghat Moopil Nair Cup** (For Marathon Race)	A. R. Mansoori (1970–72 Rangers Course-Winner)	Maharashtra
15	**Amir Mohamad Khan Rolling Cup** (For the best Division in Marathon Race)	Senior Rangers 'C' Dn. 1969–71 Rangers Course-Winners)	
16	**Nilgiri Wild Life Association Prize**	*1st Prize* P. R. Shinde 1969–71 Rangers Course) *IInd Prize* M. A. Ali (1970-72 Rangers Course)	Maharashtra Madhya Pradesh

* Award to the student who has the best attendance in P. T., lectures and games and who has secured the highest marks in games and sports, power of endurance and health on tours and in Marathon Race.



Annual Report for 1970—'71 by Sri H. C. Day, I. F. S,, Director of Forest Education, Dehra Dun.

Prize Distribution Pentland Shield Awarded to M. Chatvrvedi (Madhya Pradcsh) 1969—'71 R. Course.

Convocation Address of Prof. Sher Singh Read by Sri V. S. Hejmadi, Dy. Inspector General of Forests.

Vote of Thanks by Sri P. Padmanabhan, I. F. S., Instructor, S. F. R. C., Coimbatore.

Afterwards the Convocation speech of Prof. SHER SINGH, Union Minister of State for Food and Agriculture was read by Shri S. A. Hejmadi, I. F. S., Deputy Inspector General of Forests, Government of India;

CONVOCATION ADDRESS

Ladies and Gentlemen,

I am very happy to be amidst you this evening to address this annual convocation of the Southern Forest Rangers College, an institution which has admirably catered to the needs of training not only forest technicians for the Central and Southern regions of the country for over 50 years but also those from neighbouring countries. It is well known that some of the alumni of this institution have earned for themselves enviable reputation in the practice of forestry and have contributed substantially towards the development of forestry in the country I have no doubt in my mind that the trainees passing out today will also live upto similar expectations and bring increasing fame to their alma mater.

The human-forest relationship is never static. It has been changing with the evolution of human society. The primitive man's dependence on his physical environments was intimate and direct. The woods were the habitat in which he could find protection from weather and where he could secure his food from roots, fruits and fauna. As society developed, his attitude towards the forests changed. The forests obstructed the growth of agriculture and urbanization, which needed to be developed for the settlement of the increasing population. Consequently economic development of a society came to be associated with the destruction of forests. This was perhaps a necessary process. Most civilized societies however, carried the destruction of forests too far.

India despite her heritage of love for nature, was no exception. As population grew, forest started disappearing fast, even from places where they should never have been interfered with resulting in the obvious loss of fertile soil and dying out of the water resources. The general policy was to extend agriculture and to obtain teak and other timbers for the Navy and for constructional purposes. Soon, the rapid diminution of forests, and their likely failure to continue to yield the requirements in adequate quantities, began to be felt and forced the administration to initiate steps towards forest conservancy in the year 1800. Till then the forests were considered "no man's land" on which one could freely cut trees,

cultivate crops and graze their flocks. The work of the pioneer foresters was indeed very difficult, nevertheless they did a remarkable job of it. The difficulties which they surmounted their devotion and zeal have been a source of unfailing inspiration to the succeeding generations of foresters.

Over 80% of our population resides in over 5½ lakh villages, a considerable number of which lie on the fringe or within the forest areas itself. These rural masses have heavy demands on the forests for the supply of firewood and small wood for their bonafide domestic and agricultural use. The fuelwood situation itself tends to be precarious, which is a matter of grave concern, as fuel-wood provides almost 40% of the energy consumed in the country. The Energy Survey Committee, Planning Commission, analysed that in 1962-63 about 25% of the total production of cow dung equivalent to 55 million tons was consumed as domestic fuel. To replace 55 million tons of this cow-dung, for use as manure, we would have needed 23 million tons of fuel-wood each year.

You all will agree that with improved varieties of seeds, adequate irrigation and appropriate fertilizer and manurial inputs, we can grow not only two but three or four ears of corn where only one or none grew before. When a given quantity of agricultural produce can be obtained from smaller area through the adoption of modern methods, the land thus saved can be used for other purposes like production of fodder and practising farm forestry, releasing presures for land, pasturage and domestic fuel. The significance of the "green revolution" to the forester, therefore, is very meaningful. It is so not because he can hope to be free from the traditional pressure on the forest land but because he can now make more purposeful efforts towards the industrialization of the country.

I would like to high light that during the pre-independence era, and for nearly one and a half decades thereaf er, the Indian Forester, by and large, continued to follow the forest management and planning techniques largely developed in Europe during the ninteenth century. The forester was in addition busy guarding against encroachments, illicit cuttings controlling and regulating grazing, collecting revenues, etc. which work can by no stretch of imagination be called technical dispensation. In a developing economy, social patterns of behaviour and demands cannot be satisfied only by indirect benefits from the forests. In order to attain the fullest possible contribution of the forests for the economic advancement of our country much more than the mere solution of the biological problems of forest production and physical protection is required. The rational utilization of forest products demands similar imaginative attention. The forester now assumes new responsibilities as an agent of change.

It is known that forestry and forest industries sector possesses a number of economic and technical characteristics which enable it to act as an important base for economic growth. In the recent years, forestry and forest industries are endeavouring to make significant contributions to the economic growth, yet this is only the beginning and a great deal of work remains to be done. I am quite confident that if the forest resource is developed dynamically, it is capable of making far more spectacular contribution in bringing about rural uplift, increasing employment potential, augmenting foreign exchange earning, and diverting pressure on land for cultivation into other far more fruitful and satisfying vocations.

One of the major social problems in our country is the increasing urban unemployment, which results from the drift of population from the country side to the towns. At the moment, the rate of job creation through urban industrialization is not high enough to absorb these migrants. Any undertaking which provide significant employment opportunities in rural areas can, therefore play an important role in rural stabitization and in general economic development.

Generally, production-forestry activity is based on wood, which is bulky and, therefore, not only difficult to transport, but its value relative to its weight is often low, neceesitating the location of wood-using industries close to the centres of production. While steel, concrete, plastics and other material is displacing wood in its conventional uses, you may be conscious that new uses for wood products are continually being found so much so that consumption of wood is steadily increasing. To take one example, projected demand for pulping material for pulp and paper is estimated to be of the order of 15.6 million tonnes by the year 1985 while the availability of raw material is estimated to be only of the order of 7.5 million tonnes. Even at present the tonnage of wood produced in the United States is comparable to the combined production of cement, plastics steel and other materials.

Wood is one of the world's most versatile raw materials, its supply is renewable and sustainable. Weight for weight, wood has 2½ times the tensile strength of steel, and is only slightly weaker than structural aluminium. Weight for weight again, the design values which may be used for wood are higher than those used for structural steel. Further-more in stiffness, which for many applications is the controlling property. a tonne of wood is equivalent to a tonne of

structural steel or structural aluminium and is twice as stiff as the glass fabric laminate. Added to these qualities, it is easy to work and is often beautiful in appearance, is elastic and is non-conductive.

The products which the forests yield and the processes employed to convert them into other articles are such that there appears to be some type of industry suitable for virtually every stage of economic development. The establishment of of forest based industries generates potential for various other industries, as much of the demand for wood products comes from other industries and the inputs of many wood using industries are products of other industries.

Water is another important natural resource. Fifty centuries ago the Mohanjodaro civilization of the Indus valley enjoyed the benefits of well-designed water supply and drainage system and even public swimming pools and baths. Excavated ruins of that period have revealed a surprising variety of water-works, including tanks and irrigation canals. In the recent past, however, nearly every one in India to a smaller or greater degree, has experienced some problem caused by too much water when we did not want it or too little water when we did want it. Indian farmer knows only too well the difficulties experienced in getting enough water for irrigation. He also knows the worries of dry wells, failing springs and erratic surface supplies. He has repeatedly suffered the furies of floods and the consequences of erosion brought about by unhindered runoff. Losses in life security, productivity, and money suffered by this country are almost incalculable. Only this year floods have wrought a damage to the extent of Rs. 500/- crores besides causing misery and hardship to a very large part of the Indian population.

These problems and many more like them are very well known to every one of us. What have we done to mitigate the evil of excess water or augment its supply during scarcity? What more can be done to ameliorate them?

We have to learn more about the control of floods at their source. We must have supplies of good water for the house stock, gardens and crops. We have to stop wasting water. We have to learn to use it more efficiently in industry in towns and cities, in general farming, and in irrigation, to be adopted in all parts of the Nation. We have to look to the fields, the forests, the hills that make up our watersheds; for the way we manage them effects, the abundance and

purity of the water rural and urban people need. Water, land and the people are inseparable components of one thing, our welfare. The management of water it closely linked with the management of our forests. Scientific investigation have proved beyond doubt that under forest cover the permeability and storage capacity of soil is greater leading to reduced surface runoff, a more prolonged yield of water during the dry season, and lower streamflood peaks. I need hardly dwell upon elaborating the beneficial effects of these.

The public use of forest lands is increasing rapidly due to organisation and the greater need for recreation. Amenities such as recreation, scientific study, and nature conservation including wild life are steadily gaining importance. Majority of the town dwellers find the much needed recreation in wilderness areas. As conditions improve or should I say deteriorate in our urban areas demands for such facilities will increase.

The task of every forester is, therefore, to serve not the needs of trees bus of man. You students who are passing out today must by now be aware that Forest is a biological complex which through your scientific and rational intervention can be made to yield goods and services to the community. Your task is to try to ensure a harmonious balance between the increasing and changing demands of man from the forest and to improve the capacity of this resource through rational management.

During the course of your service you will face many of the institutional problems connected with the day to day needs and behaviour of the common man and the human beings depending upon the forests for their livelihood. Land reforms and changes in attitudes cannot be brought about by coercion. Today's management decisions are truly people oriented. And the forester as a member (and possibly if he earns that position) of a new team of environmental planners and managers must become increasingly knowledgeable of and sensitive to all of the "people-forest" interactions. Unless there is an impetus within the farming community for change and a real drive for reform, legislation alone will not bring about the desired improvements.

Without the cooperation of the people, you will not able to achieve any material improvements. It is precisely for these reasons that I will exhort you to value healthy public relations more than anything else. Our experience with public relations programmes has demonstrated that if people, irrespective of their educational background or social status, are treated like rational adults, the results are indeed rewarding.

The forest resources in our country are almost all State owned. We must look upon our forests as a national heritage, as a national wealth belonging to the people, managed by the State for the benefit of the people as a whole. I am glad to learn that you have undergone a course of lectures in public relations. That indeed is a step in the right direction Tomorrow's forester must be respon- sive to people and involve them in management decisions. The concerned public must be involved in considering alternatives and evaluating consequences. The forester must interpret, explain ana share his knowledge of the forest as he never has done before.

In conclusion I congratulate you all for successfully completing the arducus and complicated courses of study and training and particularly those who have won various prizes and distinctions. Whatever forest service you may be entering into, a challenging and creative career awaits you. The real satisfaction of success will come from your earnest effort done in a spirit of dedication in this vast field of forestry. I wish you all a very happy, purposeful and creative career.

— Jai Hind

Shri P. Padmanabhan, I. F. S., Instructor, Southern Forest Rangers College, Coimbatore, proposed the Vote of Thanks as under :

Mr. Dy. Inspector General of Forests, Mr. President,

Ladies and Gentlemen,

The pleasant privilege of proposing a vote of thanks to all those that helped for the grand success of this sacred Convocation has fallen on me. It is simply not possible to mention everyone and thank them individually because this function depends upon the help and cooperation of many many.

But still it is my duty to say a few words of gratitude for those who have taken much pain and effort for this function.

Hon'ble Shri Professor Sher Singh, our Minister for State (Agriculture) in spite of being indisposed was kind enough to send us an inspiring and fine address to the Convocation in time. Our thanks and gratitude are due to him·

Shri S. A. Hejmadi, our Deputy Inspector General was kind enough to come so far from Delhi in spite of his multifarious duties and read the Convocation address and actually added life to the function. For that we are very thankful to him.

Shri S. K. Seth, our learned President, Forest Research Institute and Colleges, Dehra Dun, Shri H. C. Day, Director of Forest Education were kind enough to guide us about this function in a fitting manner and we are thankful to them. I thank the Chief Conservator of Forests, Tamil Nadu, Shri K. A. Bhoja Shetty for attending this function inspite of pressing duties elsewhere and presenting the unique pair of tusks to the institution.

This evening we have amidst us some distinguished American Foresters, Prof. Dickerman, Professor Lane and Dr. Johnson. Though they are staying here for a very brief time they were kind enough to accept our invitation and found time to attend this function. It is extremely kind of them and I thank them for the same.

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I will be failing in my duty if I were not to mention the help rendered by the Principal, staff of our college and the junior students of the college in the physical execution of the various works connected with this function. On behalf of the Institution and of my own I extend our gratitude to all of them.

Ladies and Gentlemen it is customary for the person who proposes a vote of thanks in the Convocation to say a few words to the passing out Rangers.

My dear young friends I congratulate you all for the success in your training. You heard the inspiring address of our Honourable Minister. He has given you some valuable hints to become successfull — more than that, useful public servants of the great country, we all live in.

I have great confidence in you that you will all prove worthy of our expectation in you, as Foresters, in protecting our valuable forests and making the nation richer and a better place to live in.

I thank you all ladies and gentlemen for gracing this function and making it colourful and a success.

Thank you.

* * * *

Sports Day in Southern Forest Rangers College Coimbatore

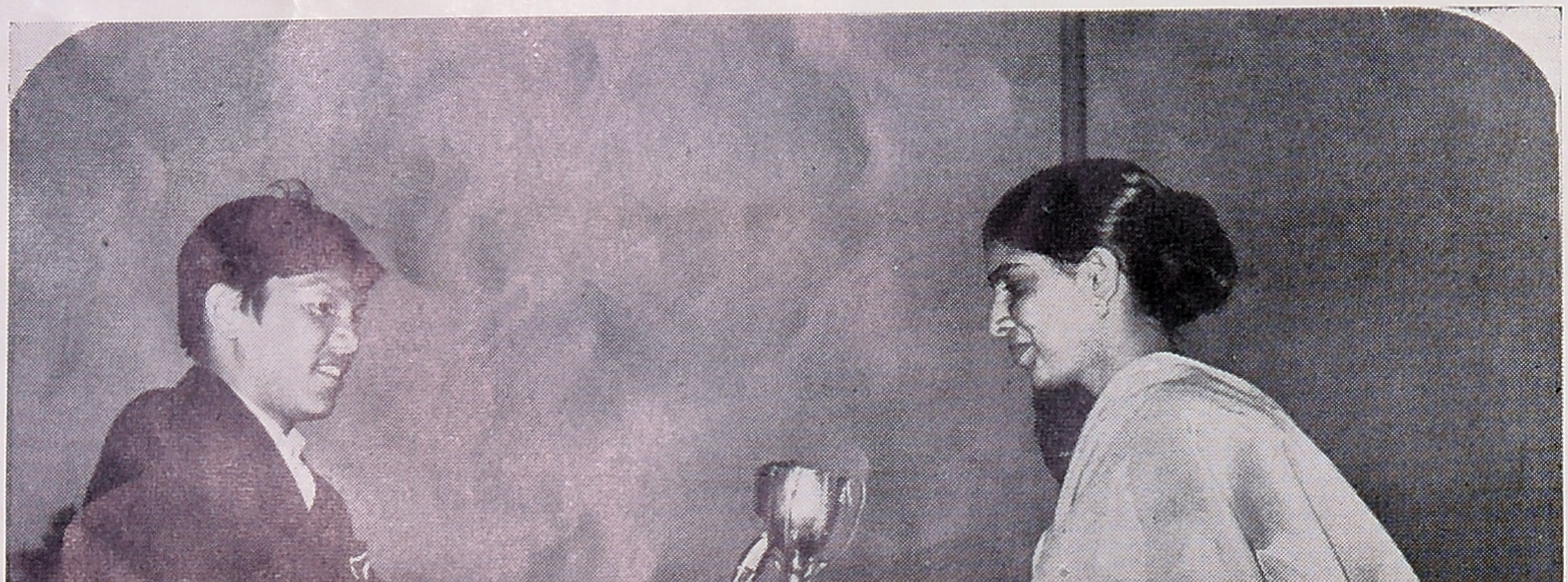
S. JOHN JOSEPH, I. F. S.,
Officer in-charge, Sports Section.

The Annual Sports Day in the College is a red letter day in the humdrum activities of the college. The students look forward to the day with verve and eagerness, as it provides a pleasant interlude in their daily routine refreshing their daily routine refreshing their minds and bodies. It is heartening to see even students with retiring and shy disposition forging to the forefront exhibiting their talents in the track and field. With nearly about thirty events, almost every student had a chance to participate and win a prize. Besides, the guests and children are also enthused by giving them a chance to take part in events, specially arranged for them.

The sports day was celebrated on 20th February 1972, after the Senior and Junior students returned from their first tour of the year. Preparations for the day commenced a week ahead. The college was bustling with activity the last few days, with some students participating in the heats and semifinals while the others busied themselves with decoration work.

On 20-2-1972 the college campus looked gay and festive with welcome arches, streamers and colourful buntings. LCDR T. P. Nair, Offg. Commander of I. N. S. Agrani was the chief guest of the day. He promptly arrived at 2-00 p. m. hoisted the college flag and took the salute from the tastefully decorated saluting base. The students, clad in green blazer coats and contrasting white trousers, marched past the saluting base, to the tune of the police band. The march past was impressive and elicited flattering comments from all those present.

Fancy Dress Competition.



Sri Fredric Liew (Malaysia) Receiving Champion Ship
Richmond Cup (38 Points)

SOUTHERN FOREST RANGERS COLLEGE COIMBATORE

LIST OF PRIZE WINNERS FOR ANNUAL SPORTS DAY 20—2—1972

Sl. No.	Name of Events	I Prize Awarded to	II Prize Awarded to
1.	100 Metres Race	Frederic Liew	Ananda Gowda
2.	200 Metres Race	Frederic Liew	Ananda Gowda
3.	400 Metres Race	Ananda Gowda	A. R. Mansoori
4.	800 Metres Race	C. S. Sharma	K. K. Purushothama
5.	1500 Metres Race	C. S. Sharma	V. S. Saxena
6.	110 Metres Hurdles Race	Frederic Liew	Y. Purohit
7.	Shot-Put	Radhakrishna	Y. Purohit
8.	Discus Throw	Y. Purohit	S. V. Naik
9.	Javelin Throw	G. Hiu	Frederic Liew
10.	Hammer Throw	T. K. Bhattacharya	K. Kandaswamy
11.	Hop-step and Jump	Frederic Liew	Radhakrishna
12.	High Jump	Frederic Liew	Radhakrishna
13.	Long Jump	Frederic Liew	M. S. Balgi
14.	Pole–Vault	Frederic Liew	S. V. Naik
15.	Slow Cycle Race	S. A. Shaha	S. A. Mateen
16.	3500 Metres Fast Cycle Race	M. T. Macha	S. M. Gautam
17.	Sack Scrimmage	Y. Purohit	S. K. Mitra
18.	Servants Race	P. Ramakrishnan	M Rajamani
19.	(a) Office staff race (fast cycle) below 40 years	N. Nagarajan	Stanley Jagadese
	(b) Office staff race (Lime ane spoon) above 40 years and ladies.	M. Manuel	S. G. Chandrasekarappa
20.	Gymkhana Event	Mr. Jambulingam and Miss Daisy Misquith	Mr. Venkatakrishnan and Miss Correa III Mr. and Mrs. Rajagopal Shett

Sl. No.	Name of Events	I Prize Awarded to	II Prize Awarded to
21.	Children's Race (boys) above 10 years	I. M Sudhakar	II. M. Nasir III. Basheer
	Children's Race (boys) below 10 years	I. Nagarajan	II. Kulandaivadivelu III. Krishnakumar
22.	Children's Race	I. M. Ananthanarayanan	II. C. B. Nanda III. Premkumar
23.	Fancy Dress competition	I. D. D. Sharma & M. K. Sharma	II. Sivasubramanian III. C. S. Sharma and R. P. Soni
24.	Officers Event (College and Research only)	Shri Karunakaran	Shri T. Rajamannar
25.	Old Students' Event–Shot–put	Shri T. Rajamannar	Shri H. Rajagopal Shetty
26.	Tug-of-war	Senior B Division	Junior A Division
27.	4 x 100 Meters Relay Race Inter-division winners	Senior A Division	Senior C Division
28.	4 x 100 Meters Open Invitation Relay Race	Ameture Athletic Union, Coimbatore.	P. S. G. Arts College, Coimbatore.
29.	Special Prize for Announcer	Miss M. Misquith	
30.	Championship Richmond Cup awarded to (previous 32 – R. K. Ghana—1965)	Shri Frederic Liew (Malaysia) 38 points (College Record broken this year)	
31.	The Uberoi's Cup for Pentathlon—awarded to	Shri Frederic Liew (Malaysia) (13 points)	
32.	Sankunni Menon's Rolling cup (Best House in Athletics, track and field events combined) awarded to	Venkatrama Iyer House (61 points) - Shri M. L. Chikkaraju received the prize.	
33.	Sita Bai Rolling Cup (for the House securing the maximum number of points in the track) awarded to	Chengappa House (21 points) - Shri K. Prabodha received the prize.	
34.	Laungani Rolling Cup (for the House securing the maximum number of points in field events) awarded to	Venkatrama Iyer House (44 points) - Shri M. L. Chikkaraju received the prize.	

WILD LIFE DAY CELEBRATION

SHRI T. RAJAMANNAR,
Officer in-charge, Wild Life Section.

Vanya Prani Saptah (Wild Life Week) is observed during the first week of October every year to focus the attention to the necesity of conserving the country's rich wild life heritage and its natural abode. The first week of October was chosen for this purpose, because the birth anniversay of Mahatma Gandhi falls during the week - the 2nd October and his belief in Ahimsa and love for wild life would further the cause of wild life.

We observed the 17th Vanya Prani Saptah this year. To register the interest and inculcate the feeling of enthusiasm in conserving wild life and its habitats in the youth, the wild life section of this college is conducting Elocution and Essay competitions on wild life every year. This year the competitions were held on 18-9-1971 and several competitors from various colleges of this city have participated. Prizes were awarded to the winners.

In Elocution competition, Miss Rekha Machery of P. S. G. R. Krishnammal College, Coimbatore and Mr. K. S. Ramesh of Coimbatore Institute of Technology won the first and second prizes, respectively.

In the Eassay competition, Mr. K. N. Ganesan of the Southern Forest Rangers College won the first prize and the second prize was shared by Miss. I. Vijayalakshmi and Miss S. K. Jayalakshmi of P. S. G. R. Krishnammal College, and Miss V. Subala of Nirmala College, Coimbatore.

Wild life Day was celebrated at the college on 27-10-1971, under the auspices of this college and the Forest Department, Coimbatore Central Division in a more befitting manner. Thiru G. K. Devarajulu, Managing Director, South

India Viscose Ltd.. Coimbatore, presided and Thirumathi C. Visalakshi Jadav, B. Sc., B. T., Chief Educational Officer, Coimbatore distributed the prizes to the winners of various competitions held during the celebrations. A procession was taken out through the main streets of Coimbatore, with decorated Elephants, floats and lorries carrying folk dances and instruments, to arouse interest and draw the attention of the [public to the need for conserving wild life. Variety entertainment competitions on wild life themes, were also conducted in which number of boys and girls from the local colleges and High Schools have participated and added gay and colour to the occasion. The play put up by St. Francis Convent was adjudged as the best and the second place was won by the Government High School, Karamadai. Besides quite a large uumber of participants in the variety competitions were awarded prizes for giving necessary encouragement and participation in future.

Thiru A. M. Mahmood Husain, I. F. S., Principal, Southern Forest Rangers College, Coimbatore welcomed the gathering, after which Thiru P. Gopal, M.L.A. Dr. W. T. V. Adiseshiah, M. A., Ph. D. and Thiru C. K. Devarajulu addressed the gathering, empaasizing the need for preservation of forests and wild life for the benefit of mankind. The function ended with vote of thanks by Thiru T. Rajamannar. An unprecedented gathering witnessed and enjoyed the wild life day functions.

Orienteering - An Exciting Outdoor Sport

A. M. MAHMOOD HUSAIN, I. F. S.,
Principal, Southern Forest Rangers College, Coimbatore.

On of the highlights of the Junior Class (1971—'73) tour programme this year was a delightful innovation. The idea is not our own but one taken from the pages of the Quarterly Journal of Forestry (published by the Royal Forestry Society of Britain) and adapted to our forest conditions. Orienteering is a new form of sport, rapidly increasing in popularity in Scandinavia and Britain. The British Orienteering Federation has arranged several international meets. Modelled on these but having its own unique features, the Topslip (South Coimbatore Division) exercise of May 1972 may quite possibly be the first time such a competition was organized in India. Both the participants as well as the College Instructional staff who spared no pains to arrange it enjoyed the competition and its thrills thoroughly.

Briefly speaking, the competition consists in running (or walking or hill climbing, depending on the terrain) from a common starting point to a common destination several kilometres away, visiting five or six obligatory points on the way. Several alternative routes are chosen and competitors are so started on the routes consecutively that there is a time interval between one competitor and the next on each route sufficient to prevent one competitor joining up with another on the same route. The competitors have to find their way in unfamiliar forest areas solely with the aid of a large scale map trace and a pocket compass. Compass bearings and distances from one obligatory point to next are taken from the map trace supplied to each competitor. Successive points are thus located on the ground, as the participant speeds on to his destination.

This outline sounds simple enough but much advance organisation is essential. A keen sense of direction and distance, considerable presence of mind and ability to arrive at quick route decisions, stamina and speed-in short an active brain and tireless brawn, are the attributes for success in this sport.

More than anyone else, Foresters stand to gain by exercises of this kind. A map and one's own capacity are one better than the time-honoured method of finding one's way in an unfamiliar forest viz. the help of the oldest tribal or subordinate at hand. In spite of their frequent tours, seldom do the Ranger students get left on their own in the forest. The students may recollect the occasions when even a whole class lost its way in the forest.

The locale for the Topslip exercise was the moist deciduous forest (average elevation 800 m.) with medium density overwood and moderate undergrowth. The forest abounds in wild life, including elephants and bison. The distance from the starting point, a bridge along the Ulandi ghat road to the destination, Topslip rest house was about 5 k. m. After repeated field reconnoitring by the instructional staff, six different routes were chosen and five check points fixed along each route. At each check point was kept a specially made rubber stamp with the route symbol and the check point number thus - A1 - to show it was the 1st point along route A.

As this was a pioneer attempt and also as the forest teems with wild iife, it was felt expedient to treat a pair of students (chosen by lot) as the unit for the race. Actually many students said later they would prefer to go alone, and avoid loss of time in discussion and doubt over the correct route, etc. The students were taken by truck early in the morning to the starting point. There were 6 routes, A to F and pairs were started at 4 minute intervals from about 8 a.m., so that there was a gap (at the start) of 24 minutes between any two pairs on the same route. At start, each pair was given a contour map trace on a scale of 1:15000, showing the particular route, all the important natural features, the two ghat roads which nearly enclose the whole area (this incidentally ensured that the chance to lose track and stray away was minimal); a course card with the names of the pair and the time of start, leaving space for rubber stamping at each check point; a somewhat brain-teasing list of clues to find out the actual location of the hollow bamboo tube containing the rubber stamp at each check point; and a cavalry board with a compass fixed to it, for stretching the map on and tying the board to one's wrist. Examples of clues are: "Look for the topless tree", "See the tree that gives red latex".

The terrain was very undulating and sometimes there were steep slopes to climb. The students took advantage of any level country or gentle slope to run along. The competition evoked great enthusiasm and the race at the finish (a level stretch of 200 m. along the road) was a sight to see.

As wild elephants were plentiful, adequate precautions were taken to ensure safety by deploying local territorial staff at certain spots along nalas and keeping wild elephants off the routes. The students were also cautioned to observe the etiquette of the jungle and to make their way as unobtrusively and noiselessly as possible. Even so, two pairs of students (the rear pair having caught up with the earlier pair) were so incessantly chattering that they failed to notice a group of bison till they actually stumbled into the group. The bison bolted off noisily. But none the wiser, within another ten minutes the same two pairs of students almost landed on a couple of elephants. One of the startled elephants trumpeted in panic before quitting the seene hastily. The loud trumpeting sent shivers down the spine not only of the participants scattered all over the forest but also of the organizers including the writer (who happened to be on the spot) concerned for the safety of the boys. The students learnt the lesson how to behave in such a forest.

The laurels of this first competition went to a pair, C. W. Saraf and K. Kandaswamy of the 71–73 classs who covered the distance in 1 hour and 53 minutes. The evening line-up of the participants had a hilarious and mirthful aftermath with a couple of stragglers (who appeared to have done some sleep walking far beyond the territory enclosed by the two ghat roads), offering a target for good humored banter. Altogether it was an unforgettable day with all its excitement and thrills and the satisfaction of a job well done.

CALL IT A SPORT

R. K. DIXIT,
1970–72 Course (Madhya Pradesh)

In the earliest days of human activity on the earth, man lived in the forests, as one among the many denizens that roamed our vast jungles. He lived in competition with the other animals and hence had to design means of protecting himself against possible attacks from animals. With his superior intelligence, he devised means to live in comfort under some protection by building houses of stone and also huts on tree tops. He also learnt to protect himself with simple weapons made of stone, to be used only when driven to do so. As he advanced. he cleared forests for cultivation and habitation; this rendered such lands unsuitable for the animals to live in.

As human population increased, more clearing of forests followed and the animals that had shared these forests with humans and had, in fact, been the pioneer inhabitants of the forests long before man appeared on the scene,—had increasingly smaller areas to live in and move about. With the march of civilization, man improved his weapons of protection by using iron and other metals. He invented bows and arrows, which gave him an edge over the animals, in that he could tackle them from a distance, whereas in the past, he had to indulge in close 'hand to hand' fighting. He then used poisoned arrows and improved their efficiency. He had by then, learnt that some of the animals provide excellent material for the pot and started going in search of them and bagging them. He found that the animals still had the advantage of their natural instincts and could use them to defend themselves against such unprevoked attacks. So he resorted to measures of safety. He trained elephants to take him into the jungles, sitting safely on them and hunted animals of his choice. He conquered primeval conditions with scientific achievements, which have been variously used both for the benefit and detriment of the world and developed modern means of transport, comfort and killing power.

In the olden days, kings and others of noble rank went to the forests to hunt. The hunt always followed the accepted principle of fighting an adversary on equal footing. It was not seldom that the hunter was killed by the hunted. But now, the hunt is heavily one-sided. With the invention and development of firearms like double-barrelled guns and high velocity express rifles of great precision, man found himself in a position to massacre these animals from a very long range, often literally from conditions of "arm-chair" comfort!

Burton has put it well when he writes, "It can be said that all sport is governed by unwritten laws and the general tendency is to give the animal a shorting chance of escape, and also to make the sport as good a test as possible consistent with the object in view, which is the death of the quarry." A sportsman is one who plays fair without taking any advantage over the adversary. With modern facilities such as the Jeep and spot lights of flashing brilliance, the anima 'hunted', if one can use the term with a clear conscience, has little chance against these modern 'armadas'. Instances can be quoted when 370 tigers, 208 rhinceroses, 430 buffaloes and 324 barasingha deer were killed, in addition to many other animals in "Shikar" trips organised by Maharaja Nripendra Narayan of Cooch Bihar. Or in "shoots" at the Keoladeo Ghana lake of Bharatpur for the then Viceroy, Lord Linlithgow when 4273 ducks and geese were shot. Commercialism in selling the meat of forest animals had also developed. It is not rare to see protected birds and animals being sold in the market, especially in the hiily regions of North Eastern India, where meat is popular.

Thus modern shikar, in most cases, is nothing but a ruthless massacre of defenceless denizens of the forests with an artillery of weapons, modern conveyances, and safety of a drawing room. It is a shameful travesty of sport.

"Wild life! That is how we refer to the magnificient animals of our jungles and to the beautiful birds that brighten our lives. I wonder sometimes, what these animals and birds think of men and how they would describe him if they had to do so ...... In spite of our culture and civilization, in many ways, man

continues to be not only wild but more dangerous than any of the so called animals .... We are strange mixtures of good and evil, of civilization and barbarism, of the divine and the base". — (Sri Jawaharlal Nehru)

Under this set up, it is not only proper but imperative that all forest officers should stop at nothing to prevent such wanton destruction of wildlife. One of the means to achieve it is for themselves to lay down arms and take up that infinitely more enterprising and adventurous weapon— the camera to "shoot wild animals" in their native jungles.

THE STUDENTS VIEW ON FORESTRY EDUCATION*

R. L. SINGH
Indian Forest College
Dehra Dun

Introduction

In India, forestry is not one of the subjects of study in the universities. It is restricted to those who opt for the Forest Service as their career. So as a subject it never attracts the attention of any university student. My own case was similar. It was in 1968 (when, after completing my post-graduation in physics, I was working as a lecturer in one of the university colleges of India) that I came across a piece of news ... "Science graduates are required to man the Indian Forest Service. The selected candidate will have to undergo a training in profes sional forestry in the Indian Forest College ... "

— Why Science graduates only? Is forestry a scientific subject? —

This was my first reaction to the news. Finally, this ignorance of mine tempted me to contact one of the forest officers of my State. And to my utter surprise, I was told No. Forestry is not one of the basic sciences. It is in fact a typical combination of all the sciences, physical, biological and social. As a forest officer one is supposed to command the huge army of trees and animals in such a way that the equilibrium of the entire biomass remains at a point where people can take the maximum raw material for industries and timber for construction purposes.

* Prize-winning article with Assian region in the Students Essay contest at the World Consultation on Forestry Education and Training held at Stockholm, Sweden in Sepetmber/October, 1971.

Why I Joined This Training

All these high-sounding words were new to me. But the image of a commander of the natural forces tempted me to opt for this training. Another major factor in this direction was the job-oriented nature of the training. In India, all those who opt for the professional training in forestry enjoy all the privileges of a government officer, even when they are students of the Indian Forest College. This factor convinced me of the importance which Government attaches to the training. The charm of becoming a student once again and widening the horizon of my academic qualifications was another factor.

These Vital Questions

Now, at this stage, when I am on the verge of completing my training in professional forestry, I ask myself-Have I really widened the horizon of my academic qualifications? Am I really going to emerge as a commander of the natural forces to serve my people in the most effiective way? Do I really stand at par with my other colleaguse who went in for other professions such as law medicine, teaching, research, engineering, etc.?

I find myself hesitant in saying "yes" to all these questions.

What is Unique to me as a Trained Forester?

On the face of it, no doubt, this training in forestry has added to academic qualifications. Now, I know not only about physics, but about many other subjects. But the vital question which I have asked myself very often is still unanswered — Is forestry this classical packaging of biology, soil science, economics, forest law, silviculture, mensuration and many other subjects, or is it something else? What is the common ground of knowledge that is unique to me as a trained forester and which distinguishes me from my colleagues in other professions?

Certainly, it is not the knowledge of the few concepts of a variety of subjects which I learnt during my training in forestry. This question has sometimes made me at a loss when comparing myself to those who are physicists technologists, ecologists, soil scientists, business men or even public administrators. A student of forestry, although he knows something about each of these fields, cannot identify himself with any one of these specialists. In the back-

ground of this heart-searching was the explanation desired by many of my friends in other professions who wanted to know — after all, what is so special about what I am learning as a student of forestry?

This question I could never answer to my full satisfaction. But now, at the end of my training, after touring most of the natural and man-made forests and various forest-based industries, logging centres and catchment areas of the important dams of India, I feel that forestry is not an analytical science at all. It is not the knowledge of individual concepts of various subjects which makes a student of forestry different from others, but it is the problem-oriented integration of biological and social concepts which should be unique to him. I wish the development of this talent for integration formed the core of forestry education. So that even while learning the individual subjects, a forestry student would know that all this is to train oneself for integrating the self-competing interests of the plants, animals, soil, people, industries and above all of nature.

Have I Opted for a Second-Class Career?

The ignorance of people about the forests and their services to them is a distressing fact. I am sure that everyone undergoing his professional training in forestry will share this feeling of mine that, while persons in other professions need not tell others the nature of their job and its importance, why are we required to explain to everyone about our career and role in the development and prosperity of the society? As the student moves ahead with his training in forestry his knowledge of the forests and their importance in the life of a nation increases And it is this knowledge which makes us restless for a better recognition in society After all, how can a student of forestry resist the temptation of asking himself— if forests are so essential for conserving the moisture, soil and vegetation; for providing raw materials to industries; for cooking the meals, constructing the houses, furnishing the offices, why don't people in different walks of life know all about them and realise the importance of those who are training themselves for managing these all-important forests? And when he fails to get an answer, he starts doubting the very training which imparts all this information to him. The occasions are not rare when we, who joined this training with high hopes, are forced to think — have we opted for a second—class career?

Now, at the end of my training, I can say with all rationality that the ignoranee of people about our profession is not because it is a second-class profession, but because of our own mistakes. Those who are responsible for imparting

training in forestry have failed to educate the people. As no stage in our training is included the programme of preparing lessons for agriculturists, businessmen, schoolchildren, politicians and specialists of other professions. It is folly on our part which has left people uniformed about the vital role which foresters play in the development of a society.

Why Can't Forestry Goto The Universities?

Our training pattern is such that it sometimes breeds the idea that we are training ourselves not only for conserving the soil, water and vegetation but for conserving forestry education as well. Admission to the Indian Forest College is through a competitive examination. And it can be said that almost all the selected candidates know absolutely nothing about forests and forestry. It takes a considerable period of training to educate them about the forests and I wonder how the general information they get is essential for professional only? Why can't forestry go to the universities, colleges and schools as a general subject of study? When subjects such as history, political science, military science etc. can be there for general students, why can't forestry?

The introduction of general forestry as a subject in the universities is desirable for many other benefits Firstly, the professional foresters will be partially relieved of their responsibility of educating the people, secondly, the standard of regional institutes like the Indian Forest college could be raised to a degree or post graduate level, provided students with prior knowledge of general forestry are available. At present, this institute confers a diploma on its trainees. This diploma, which is held by most of the senior forest officers occupying top positions, is the only and highest qualification in forestry. It is a question, for consideration - is it desirable for senior officers to have professional education comparable with that of doctors, engineers, lawyers and others with whom they have to compete for public attention and allocation of public funds ?

Need for Higher Education

This connot be attained until provisions for higher education in forestry are made, if not at a national level, at least at a regional level. This is a must for getting better qualified teachers and standard textbooks. My feeling as a student is that a student is excited to learn something only when he feel there is a gap between his and his professor's knowledge. The responsibility for creating this-

gap rests on these training institutes by increasing the standard of the teaching staff, not by lowering the quality of the students.

Are We To Serve Trees Only

The curriculum in the Indian Forest College is so well arranged that a new student is imbued completely with the sense of adventure which the information about the dense woodland and wild animals automatically induces in him. His enthusiasm about his career increases with the advancement of his studies. But when this phase of information and tours ends and he comes to his final year for studying the managerial aspcet and utilisational pattern, this sense of adventure is sobered down. The lectures about various silvicultural tricks to get fully stocked, well formed crop by avoiding all biotic interferences make him ask — Is forestry devoid of all human consideration ? Do only trees and wild animals inhabit these forests or human beings also ?

As the days passed in our relationship as a prefessional forester with our people was intensified. Surprisingly enough at no stage did the turn of people's problems come. No doubt foresters are basically resource managers, but are they not also practising amateur social scientists ? For a forester, behaviour of plants and lower animals is so difficult that he is at a loss to face human beings involving exercise of free will. In countries like India, where forests are the natural home of many tribes, this aspect deserves special consideration when training the managers of these forests. An intensified training in silviculture, devoid of these considerations, gives the idea that the people residing inside the forests and their cattle are not a forester's concern. Statistics indicate that a large number of unskilled and part-time labourers depend solely upon forests for their livelihood. Don't these simple tribes, their tradions and requirements need a systematic study ?

These people form the main source of our labour supply for plantations, tending operations, cultural operations, fire fighting, logging and other operations. A doubt exists in our minds — how can a training pattern which ignores this aspect of forestry be an ideal one ? How are we, foresters of tomorrow, going to preserve our forests against the hostilities of these ignored people ?

Why Not A Systematic Study Of The Empolyment Potentiality Of the Forests?

It was with these doubts that we went on our last tour to study the managerial aspect of forestry in the field. To our suprise we observed the emergence of a completely new phenomenon in practice. Forest departments of a few states have taken up large areas of mixed deciduous forests for clearfelling and planting up with valuable species to increase the yield per unit area. In their venture they have gone all out for mechanisation but at the same time settlement of the tribes residing inside the forests has been aimed at. Large concentrated forest labour colonies have been established. They are being taught skills by the trained staff and introduced to the new tools to increase their efficiency and earning power. Permanent jobs have been provided to them within the forests. This practical information that intensive working of low yielding forest areas can provide employment for unskilled labourers and improve their lot was something new for us. We wonder why systematic study of this aspect cannot be taken up at the training institutes. particularly in countries like India where employment of unskilled and illiterate labourers is a serious problem. That these forests have a tremendous capacity for providing employment should be realised by each and every forester.

Yield Tables or Production Tables?

Forestry in India is passing through a transitional period. The growing demand of land for new and more economical land uses is changing all the age-old concepts. A professional forester in the field is finding it difficult to preserve the forest land under trees because he is unable to justify its economic equivalence with respect to other uses The new technologies have made even agriculture one of the most profitable businesses. So the logic of bringing more cultivable land under agricultural crop appeals to everybody. A forester, with all his technical and professional knowledge, is unable to compete with other land users purely on business terms. This helplessness has made its direct impact on the training pattern of the future foresters. It must be remembered that very often during the course of our training we are warned — you have to train yourselves for a completely new role. The days of traditional forestry are gone. Now a modern forest officer should develop a multi-dimensional personality. Because forests have multiple uses.

Excited by these warnings, when a student of professional forestry looks towards his courses, he finds himself at a loss. After all, how can one train oneself for multiple uses of forestry until various aspects are analysed, thoroughly evaluated and courses are included in the formal training? All these warnings lose their significance when one finds the training pattern and syllabus at the point where it was two decades ago. No doubt a course in forest economics is there, but that makes us conscious of market economics only, not of services and processes for effective management of the forest land for all purposes. A systematic study of the market value of soil and water conservation should form a part of our course. Damage due to fire is evaluated in terms of timber loss, not of overall loss of time and natural momentum. No doubt we have all learnt that plants, animals, soil and streams are all forest products, produced from material and energy received from outside. We also know that when the forest sitution deteriorates, organic yield falls, soil gets washed or blown away, water becomes mudy and winds become dusty.

But is this knowledge an end in itself? Is it for the sake of knowing only or for effective implementation? Cannot these losses be quantitatively evaluated to make the forest revenue an effective figure? The common man, the politician the policy makers and even we foresters are all conscious of figures. The total annual yield is the thing which matters to everybody. A doubt in my mind is-whether yield and production are one and the same thing?

Certainly not. These are two different words. Products might be lost or overlooked before they become yield. And this yield is such a misleading term that it can be maintained at the same level for years or can be even increased, but only at the cost of future production and site deterioration. Thus, in my opinion, a training pattern based on the age-old concept of normal forests, aiming at maximum, sustained yield should be thoroughly revised in favour of maximum production. And students of forestry should be introduced to and taught about "production tables" not "yield tables". These production tables should account not only for the yield of fuelwood and raw material to industries but also for forest influences, recreational value, science beauty, conservation of soil and water and control of silt discharge in the catchment areas of the dams and lakes. It would be folly to justify the land use under forestry on the pure economic evaluation of the timber yield.

To some of my collegues in other professions, this idea is a fantastic one. But it is because we foresters have failed to evaluate our products as a businessman would. Our attachment to most of the forest products, except timber, has been purely sentimental. Our visiting professors of forestry have been telling us that as a forester you are a philosopher, a poet and faithful servant of the people. These things are all right for self-satisfaction and emotional attachment to the profession, but not for justifying our position as a major land user and resource manager. Particularly when we are face to face with other land users, claiming better economic returns from the same which we want for our forests.

Is Natural Forest Still an Isolated Entity

Our training pattern still reflects the idea that forests along with the land under them are a natural resource and should be managed as such, particularly in natural forests. The percentage of such forests in tropical countries is considerable. But if we come out of our emotional environment, we find that technological advancement during the last two decades has changed this concept. The isolation of these forests has been broken. Now, no part of the earth is inaccessible. Forestry is not the only alternative for these remote and difficult areas under natural forest. For an outsider, natural forests and the land under them are two different resources. That land has many uses, forestry being only one of them. It is against this background that I feel a modern forest officer has to compete with many others on equal terms for justifying the claim of land under forest.

This hard fact has yet to make its impact in our courses. During one of our tours to catchment areas of various projects, we were informed that absence of vegetative cover in the Bhakra Nangal Dam (the highest dam in the world) catchment has reduced its life by many years. Annual revenue of this dam totals up to one billion Rupees. This is an eye-opener, not for the non-foresters. Why can't a course be introduced in our training for the evalution of the forest influences like shelter to agriculture in adjoining areas, protection against erosion, fodder and grazing for livestock, habitat for wildlife, recreation, etc.? Another alternative to this problem can be to recognise the various land uses and train ourselves respectively. With advancing technology and increasing food production the present land hunger for agriculture will not last long. More land will be released for other uses. As the next most important agency of land use we must train ourselves for the new uses. The present system, which aims at producing forest conservations, should think of producing forest creators and expanders.

There is a need in forestry training to take into account the several aspects of changing society and culture. As professional foresters, should we not be trained as experts of consumer behaviour towards forest produce and land resource economics, forest products marketing, philosophies and cultural attitudes of people towards forest land, river basin planning, aggregate forest economics, national land policies, planning and re-development of depressed areas? A modern forest officer in my opinion is a decision-making authority first, before anything else. Hence he should train himself for developing various abilities through the appreciation of human values. No doubt it is the age of specialisation, but to be emotionally attached to one's discipline carries a hidden danger of being isolated.

Why Not a Regional Forest Policy?

Study of national forest policy is a subject in our training institute. But this does not reflect the regional nature of the Indian Forest College which receives students not from India alone, but from Ceylon, Nepal, Nigeria, Malawi, Malaysia, Indonesia and other Afro-Asian countries. It would be beneficial for all of us if the comparative study of the national forest policies of this tropica countries were a subject. This would help in making us think in a wider perspective and in developing an objective outlook. The necessity of this subject came to mind when we were touring in the catchment area of the Bhakra Dam. There, we were informed that a part of the catchment falls within the territories of China, and vegetative covering, though necessary, cannot be done completely. This made us think-why comparative study only, why not a regional planning for the overall development of the region? This planning should include the estimated requirements of various forest produce on a priority basis Because it is the "nattional minimum", the minimum requirement of the nations, which will govern our objectives.

As students of forestry we realise our limitations. We know that forestry is not a one-man show. In addition to foresters, government and the public are other participants. But this cannot deter us from thinking and training ourselves for this joint responsibility. I don't accept the limited role of a forester which this training aims to impart - the role of learning the tried and established techniques and seeing whether felling is followed by suitable regeneration or not, whether after thinning the number of stems left coincides with the number dictated in the yield tables or not! This classical concept of forestry which was primarily for the management of natural forests must go. We must develop a dynamic outlook and come out of our shells where peaceful environment and nearness to

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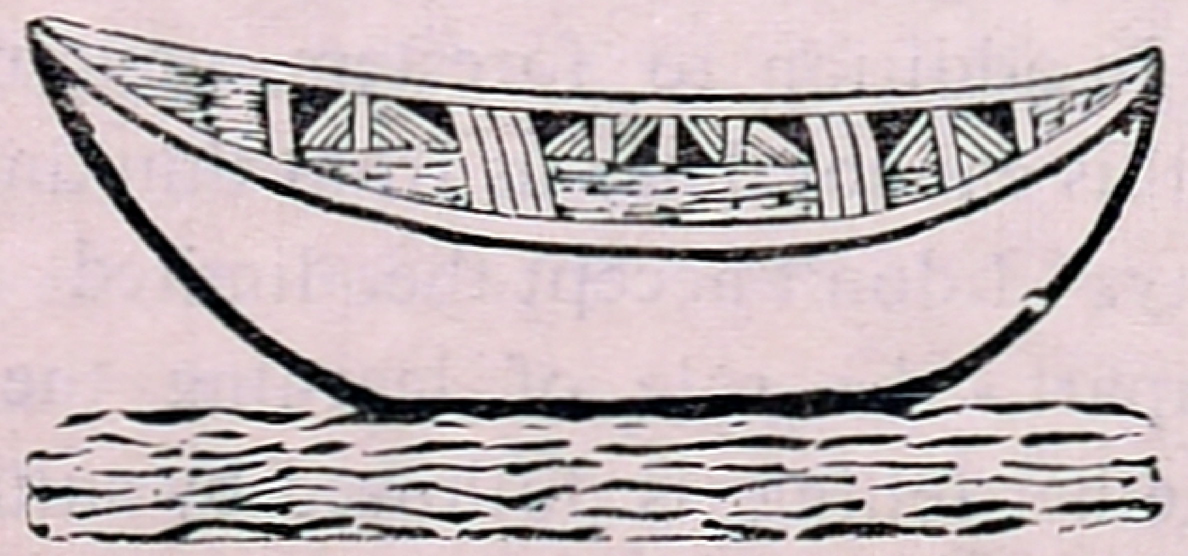
nature were the main sources of satisfaction. Nothing in this space age can remain an isolated natural phenomenon; so with forestry. Today forestry is a man-made phenomenon and the realisation of this fact brings entirely new problem for research, investment employment, studies, applications and ambitions.

Future Prospects

I know that wood as a finished product is losing ground on the market. But, on the other hand, wood as a raw material, as a source of cellulose, has occupied completely new territories· Formal training in forestry has convinced me that I have not opted for a second-class career, but for a far more challenging and difficult career. It has given a sense of involvement in a very complicated phenomenon where various natural, cultural, social and biological forces compete with each other to shape the things of tomorrow. To play his role effectively in this affair, the forester requires a higher and more expert knowledge at his command. For that I hope, in the near future, facilities will be available in India or abroad. The growing demand for forest products in various forms and their shortage due to increasing population will place many economic, social and political limitations in my way. But a conviction that I am not committed to the people and nation only but also to future generations which are yet to be born will stand with me. The idea that we are going to provide greenery, natural shelter and recreation to the awfully industrialised world assures us of our future.



GLEANINGS

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We have often heard wildlife "experts" speak of harvesting wild animal populations on a "sustained yield" basis. These experts (often self-styled, the armchair variety of which is remarkably abundant in our country) usually look embarrassed when asked to suggest an instance where "controlled cropping" could be applied. Here is the perfect example that could come to their rescue on future occasions.

Early this century the Alaska fur seal looked like becoming extinct through overhunting. In 1911 the U. S. A., U. K., Japan and Russia signed a convention that brought the hunting under control. Stocks have so multipiled that on the Pribilof Islands there are an estimated one and a half million fur seals — this despite the harvesting of three million sealskins, mostly from surplus bachelor males, under the supervision of the U. S. Fish and Wild Life Service. The fur seals in the Pribilofs face the twin problems of limited food supply in summer and overcrowded rookeries, causing disease, parasite infestation and fatal injuries. Controlled cropping in such a case on biological and conservation grounds is not merely the proper thing to do but a desperate need.

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East Africa is one of the major producers of pyrethrum, an effective insecticide that is not harmful to other wildlife. Developed nations are giving up the use of organochlorine and organophosphorous insecticides — including DDT, endrin, aldrin, lindane and malathion — because of their damage to wildlife in Europe and North America, and are exporting them. Ironically, East African contries are importing these noxious insecticides from the developed nations! The closed lake systems in East Africa are particularly vulnerable to such poisons. There is no outflow in these lakes and there is a great danger of chemical build up of these

poisons in them. Much of the life in the lakes depends upon green alagae for basic food material and this could be severely affected by spraying imported insecticides on shore farms. The bird populations in these lakes are among the richest in the world and it would be a great misfortune if they were to become the ultimate victims of the developed nations' "salesmanship" of unwanted poisons.

That cattle grazing can affect wildlife adversely is provable not only from chance epidemics of rinderpest of the type that depleted the gaur populations of Bandipur and Mudumalai sanctuaries so severely in 1968. An instance from the Congo-Rwanda border (in Africa) shows that gorillas are affected by prolonged grazing by cattle with consequent habitat deterioration. Where there were 50 gorillas in 1967, in 1969 there were only 20; and these were shy and wary, not confiding as before.

Prices of leopard skins are coming down. At a recent auction of leopard skins (legal trophies) by the Kenya Game Department, the price dropped from £100 to£41 per pelt. In the U. S. A. the currentmarket price for a skin is $200. The U. S. A. imports the largest number of leopard skins but even here the number of undressed skins showed a decrease from 9556 in 1968 to 7669 in 1969. One would like to believe that this is a happy consequence of Export bans introduced by India and Kenya. Or could it be that the coats of spotted cats have simply become unfashionable?

India is the home of several distinctive forms of mammalian wildlife. The spotted deer, blackbuck, nilgai, sloth bear, four-horned antelope, barasinga (swamp deer) and Nilgiri Tahr are found only on the Indian sub-continent and nowhere else in the world. This does give us something to boast about, but the same cannot be said for the present status of these wild animals, many of which are endangered. Beauty lies in the beholder's eye, it is said, but not many would dispute

the claims of the blackbuck to being the most beautiful of these distinctively Indian animals. The spotted deer, of course, has its advocates ! In fact there are many who think that the blackbuck, especially the handsome male with its black-and-white skin and magnificently spiralled horns, should be given pride of place over the African Impala as the most graceful of all antelopes. The word "Impala" would perhaps cause raised eyebrows among many city dwellers, The only Impalas they would have seen or heard of are those manufactured by General Motors ! They perhaps might not believe that the car is named after the antelope, not the other way round !

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The black-buck, like many other animanls of open habitats, is considered "seriously endangered" in India. In Pakistan it is almost extinct. It is strange but true that millionaire ranch owners in Texas (of all unlikely places) have been importing and breeding blackbuck with, very successful results. In fact, it is suggested that there are more blackbuck in Texas than on the whole Indian Sub-continent ! Can one hope for similiar joyful tidings in due course for other endangered animals of open habitats like the Great Indian Bustard (a rare bird, literally !), the Indian Wild Ass, the Chinkara or Indian Gazelle and the Caracal ? The Cheetah or hunting leopard is now beyond all help, of course, as far as India is concerned.

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In the Eastern Pacific, considerable numbers of porpoises are killed and injured during operations to catch tuna fish. Tuna fish are prized as an article of food and the porpoises, which are aquatic mammals allied to the whales, bearing probably only one young a year, are associated with these fish. The decline in porpoise populations as a result of tuna catching is causing concern.

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The Mexican Government, which took strong action to protect the Atlantic ridley turtles from certain extinction about ten years ago, has had almost unbelievably short-sighted second thoughts about their action now and has leased out the highly depleted and vulnerable colony of these turtles for commercial exploitation as a source of skins for the novelty leather trade. This is yet another instance of a species becoming endangered because of human vanity !

Two Indian crocodiles, the mugger *(Crocodylus palustris)* and the Gharial *(Gavialis gangeticus)* are facing extinction. The reasons are familiar: loss of habitat, lack of law enforcement, and profits to be made from the trade in skins. Urgent and effective steps are needed to save these reptiles from extinction.

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Peninsular India's only wild goat, the Nilgiri Tahr, is also an endangered species but the outlook for its future survival is not altogether bleak. In the Nilgiris and Palni Hills their territory has been reduced to narrow strips along escarpments by forest plantations of bluegum and wattle. In the Anamalais and in the High Ranges of Kerala, the deeply dissected valleys, massive peaks and towering crags provide an admirable habitat for the tahr if they could be preserved. Hunting of tahr on a very restricted scale is carried out in the High Ranges by members of the High Range Game Preservation Association in order to minimise poaching and habitat destruction. George Schaller's estimate of the population after his survey of the main areas is at least a thousand animals. He feels that the number of animals legally shot is negligible while the protection from poaching and habitat destruction afforded by the Game association members' constant vigilance is real and valuable. One wonders whether this condition of tenuous security could continue for any significant length of time, what with the State government's avowed policy of taking over all "unused" land for cultivation!

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Tigers and all other predatory cats generally give man a wide berth. Cattle lifters, mankillers and man-eaters are aberrant forms, traceable often to some act of human interference. In the Sunderbans of Bangla Desh, however, an exceptional situation exists. There are tigers here that are confirmed man-eaters. They may search for a man for days, even giving up all other hunting. In attempting to track down and shoot such man-eaters, which form only about 1 % of the total tiger populatation here, a good many innocent tigers that have a normal and healthy aversion to human beings are killed. A curious observation is that the number of tiger attacks on men in the Sunderbans is not correlated with either the forest utilisation by men or with the density of prey species — spotted deer and wild boar; but it is positively correlated with the salinity of the water and high water level. It might be possible to find out from further studies on these lines what makes a tiger population ferocious and to draw up a management plan that would conserve the habitat, man, the tiger and forest utilisation.

The Great Indian One-horned Rhinoceros survives today in India only because of strict protection. Even in adjoining Nepal, its position is far less secure. In fact, informed opinion maintains that Nepal will have no rhinos by 1980 if the present trend continues. Rhinos, particularly in Asia, appear prone to reduction in numbers, largely because of the properties attributed to rhino "horn". The Sumatran rhinoceros is now facing extinction (the Javan rhino is also nearly extinct), mainly because a rhino can fetch M $ 2000 from Chinese merchants (a man's daily pay from a job would be about M $ 5) ! The obvious solution is to attack the market and outlaw the sale and purchase of rhino horn. Incidentally, one wonders why not much is heard from Africa, another stronghold of some species of rhinoceros, about the " rejuvenating " properties of rhino horn. Could it be that the Far East is markedly more susceptible to the deficiencies that rhino horn is supposed to cure than the former " Dark continent " ?

The Tsavo National Park in Kenya forms an ecological unit of 17000 sq. miles with several elephant populations. Periodic studies conducted here show that the *Acacia tortilis — Commiphora* bush is changing to open grassland because of fires and habitat damage by elephants which strip the bark off the trees, killing them in the process. A case is made out for controlled cropping of elephants in this preserve in order that the habitat may be conserved. In the meantime, natural regulatory processes appear to have set in, for the elephant populations are not on the increase.

Etorphine and Sernylan are two new immobilising drugs that have been fired from " capture guns" successfully in Norway for research projects on polar bears. Power-loaded models of syringe guns have an effective range of 30 to 50 metres. The average dosage is 41.54 microgram / Kg body weight for Etorphine and 3.25 mg / Kg body weight for Sernylan.

There has been a great deal of conjecture about the number of tigers that now exist in India. Estimates that ranged from 1500 to 2500 have now been proved fairly acurate. The " official " figure released recently is 1827. It is said

this is perhaps a slightly exaggerated figure that would account for certain remote areas not having been satisfactorily covered. In any case it is unlikely that there are more tigers than this in India. For all the criticism that there could be about the shortcomings of the enumeration technique as adopted in practice, it is agreed by all that the number of tigers is low enough to consider the species seriously endangered. The shooting of tigers is banned all over India. Export of skins was prohibited nearly four years ago. It is estimated that 400 to 500 tigers are still killed annually in India, mostly by villagers using poison supplied by the Agriculture Department. For all the statutory provisions that now exist, it is essential to control these poisons, mainly folidol and endrin, as well as poaching if the powers that be are serious about continuing to have tigers in our country.

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Tigers do respond well to protection, though slowly. Russian scientists report an increase in the numbers of the Amur tiger from 20 in 1940 to 130 today.

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It is somewhat ironical that the Indian lion, with a total population of under 200 animals (only about one-tenth of the tiger population), all in a single forest, is nevertheless far less endangered than the tiger. Its position at the moment is in fact considered " reasonably secure ". It is suggested that there is no basis to assume that the number of lions in the Gir forest has decreased during the past 30 years. The most serious adverse factor affecting the lions is the considerable overgrazing by domestic livestock in the forests inhabited by them. 112 villages and hamlets, 5000 people and 21000 domestic animals (with 30000 more brought in during the monsoon when forage is scarce) are involved, in this herbivorous onslaught on the abode of the lions. There are in addition some 450000 cattle and in areas bordering the sanctuary An inevitable result of this overcrowding is that the natural prey of the lions, namely nilgai, sambar, chital, chinkara and fourhorned antelope, are all scarce. The lions are driven to living on the cattle and it is estimated that 90 percent of the lions' prey is cattle. Even here the lions do not always get their kills ! Over 50 % of them (actual counts show 64 % in the sanctuary and 85 % outside it) are taken away by Harijans to whom the dead buffaloes mean meat, hide and bones to use and sell.Conversion of the sanctuary

into a national park is contemplated, as is a phased withdrawal of domestic livestock to allow wild herbivores time to build up sufficient numbers. Implementation of this sensible plan will be difficult, but appears the only way to save the habitat and ultimately the lions.

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Tree lovers who despair at the fate in store for trees in a world that is becoming increasingly polluted, will be pleased to hear of a tree that actually thrives in areas that have suffered from man-made pollution. This tree is none other than *Ginkgo biloba*, the gymnosperm beloved by botanists as a " living fossil ". Reports from Pittsburgh in Pennsylvania, America's original " Smoky city " and one of the world's great steel centres, indicate that *Ginkgo* flourishes in the polluted atmosphere and is achieving great popularity in the efforts of planners to beauty industrial cities. *Ginkgo* is a graceful, fan-shaped tree with silver green leaves endemic to China. Its fossils date back to 10 million years and it has remained unaltered ever since. In its heyday it had no angiosperms to compete with it, and flourished all over the world. A curious fact about *Ginkgo* is that it actually needs man in order to survive. It has not been possible to find any evidence to believe that *Ginkgo* ever was wild within the time of civilised man on earth. possibly, the last wild *Ginkgo* died shortly after the strange deal made between man and ginkgo several million years ago — a deal that is now being honoured by ginkgo obligingly beautifying man's towns and cities ! This friendly tree which forgives us our trespasses and thrives on them, may also be seen in the F. R. I. campus at Dehra Dun, where it has to contend with being lopped for fodder and takes this treatment in its all-forgiving stride !

PRATAPSINGH PARK, MAHABALESHWAR

H. L. JOSHI,
1971'—73 Rangers' Course.

Mahabaleshwar is one of the most fascinating hill stations of Maharashtra and is visited each year by a large number of tourists and distinguished personalities from all over India and abroad. It also attracts school children and college students during their academic and pleasure excursions. Since the local flora is limited to a few kinds of trees like Jamun, Hirda, Pisa, Anjani, etc. there was a long-felt need to introduce various suitable ornamental and economic trees both to break the monotony of the indigenous vegetation and also to increase the economic potential of these forests. This needed research to find out the species most suitable for the characteristic shallow and lateritic soil and the high rainfall of the plateau. In order to combine the aesthetic and economic development with recreation and education, the idea of establishing a Forest Park at Mahabaleshwar was first conceived in 1955. The actual work was started from October, 1956 and today the park is 15 years old.

The main objects of the park are as follows :

(i) To conduct research on the introduction of exotic species of ornamental and economic value.

(ii) To break the monotony of the existing flora, which consists mainly of Hirda, Jamun, Pisa, Gela and Anjani by introducing new species.

(iii) To make the public forest-minded and to inculcate in them an interest in trees.

(iv) To afford opportunities to school and college students to study nature and the growth of trees.

(v) To increase the aesthetic beauty of the hill station.

The park is situated opposite the Hindu Gymkhana in Coupe No. 20, Block No. 1, overlooking the graceful Vena Lake and has the advantage of a first class tar road leading from the Municipal check post at Vena Lake to its East, and the metalled Temple Road to its North. The area of the park is 20 acres, and it is fenced on all sides. The water pumped from the lake supplies water to the seasonal garden in the park.

Mahabaleswar and its surroundings, situated as they are along the Western Ghats and replete with history, have held a privileged place in the Maratha Kingdom. The Forest Park at Mahabaleshwar was fittingly named as the "Pratapsingh Park" after the great and noble partiot Raja Pratapsingh who ruled the District of Setara from 1819—1839 and whose strength and practical sense as a Governer was acknowledged by all.

The Park is situated on the South of the Vena Lake along declivitious terrain on either side of a perennial water course which flows towards the Vena Lake. On its east, it is skirted by the Mahabaleshwar Panchgani main road. On its West is the pretty expanse of natural forest leased to the Golf Club. The general elevation of Mahabaleshwar is 4000' above sea level. The highest point is reckoned to be 4500'. The Pratapsingh park is blessed with a salubrious climate of its own and with plentiful rainfall (over 200") so conducive to the characteristic evergreen vegetation, the emerald beauty of which enhances the pleasant verdure of the park. Inside the Park has been laid out a neat labyrinth of walks and winding paths, passing throughout the luxurious vegetation of Jamun, Hirda, Ferns and Epiphytic Orchids festooning the trees, of interest not only to lovers of nature and to botany students but also to the common man seeking communion with nature in all its peace and tranquility. The Park is a spot radiating a charm of its own, amidst an enchanting idyllic setting with the sweet lilt of melody from the birds, and a pleasing array of multi coloured flowers.

There are two attractive rustic bridges provided over the stream, to link the road laid out on the western side of the Park. The total length of the roads in the Park is over 1800' and the width of the roads is 16′. There are 6 walks 6′ wide with a total length of over 4000'.

The Park has been divided into various sections both for conducting research into exotics and also to provide recreational facilities for the public and school children. Thus there are flower beds, nurseries of forest species and a section of medicinal plants both of local and exotic origin. There is a children's corner overlooking the Vena Lake with facilities for children to play, and seats amidst attactive flower gardens for others. The children's corner is virtually thronged by visitors, especially during May every year.

A botanical section is established in an area of 6 acres on the southern side of the main stream where exotics like *Cupressus*, *Eucalyptus*, Pines, *Casuarina*, *Jacaranda*, etc. are planted experimentally. Statues of the late Chhatrapati Shivaji Maharaj, the founder of the Maratha Empire and the late Chhatrapati Pratap Sinh Maharaja of Satara, have been installed lately and are an arresting landmark of this Park.

A Forest Museum and a Herbarium in this Park provide much educative value and interest to one and all by way of enlightenment on the various trees and shrubs occuring in the Maharashtra and also on the part of the forest played in the economy of the state and nation.

The Pratpasingh Park is becoming increasingly popular and is carrying the message of the forests far and wide. May it continue to spread this gospel to preserve our forests for posterity.

GLIMPSES OF 1972 ANSWER PAPERS

Sri PADMANABAN &
Sri T. RAJAMANNAR

Here is a compilation from the answer papers of the 1972 General Knowledge paper for the Qualifying Examination. We are unable to name the sources more specifically, for we dare say, the contributors would prefer to remain anonymous. Not that we have any fear of running out of our stock of such classics-candidates' imagination being as fertile as they are.

1. Igloo — "It is an animal found in Himalayas". Another says

   "It is a river in Isreal and it is a famous river in the banks of which there are many good areas."

2. Tick — It is an animal with tentacles — According to another it is the sound produced by watch.

   Third one says it is a kind of wood. Another genius writes as "Tick means in English shorthand used for the aspirate H."

3. Caravan — "Animal like camel moving in deserts."

4. Virus — Part of throat enzyme used in fermentation.

5. Artery — A term which is used in the field of art or a thing connected with art is artery. Another writes "it is a part of plant. Third one defines it as a vein or a section in the army.

6. Hormones — A musical instrument — Another writes "They are present in human bodies and they separate male and female organs".

7. Laser — One kind of ray found in sunlight —Another describes it as "one type of Account."

8. Escalator — "Secret agent of one nation to collect defence news." According to another "people who live on snow".

Third one describes it, as people who live on poor.

Fourth one mistakes it for accelerator and writes as "a part in car to increase speed."

9. Periscope — It is used in Botany practicals. Another writes it is an instrument used for measuring the perimetre of certain objects.

10. Gullinan — They are poor people who do not have anything to eat.

Another writes that it is the method and apparatus used in atom manufacturing. (It happens to be the biggest diamond.)

Hallo! Do these amuse you and sound funny?

Here are some which may amuse you more.

Do you know the uses of Nitroglycerine?

"If we are weeping tears will come from our eyes. This one is possible for only original weeping. If we want to weep in disguise manner, then the nitroglycerine is put in the eyes which looks like as an eye's tears. This is used in cinema fields."

Another brainy person gives the uses as follows :—

1. Very useful chemical substance.

2. It is of great importance in a laboratory.

3. It is used in many experiments.

4. Many compounds are made out of it.

5. The above four important uses and many more uses.

Another discovers its use as "throat paint."

Have you heard of heavy water being defined as "water in a high place; when stored they possess potential energy. Due to heavy water we can rotate the generators by pulling the wings and get the current." Or "water which is heavy, in which fishes sink!"

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Have you heard these before?

1. Florence Nightingale is a beautiful songster.

   Discovered Australia.

According to another great man, "Florence Nightingale is a bird with sweet voice". Again it is Srimathi Sarojini Naidu, who was awarded the title of "Bharat Kokila."

One Knight writes "she is a female French Knight who killed a whole army by singing songs."

2. Picasso — A great Magician or historical place in Rome.

3. M. S. Subbulaxmi is a famous English singer.

   One politician writes that "He is the president of India candid".

   Another one discovered that she invented Printing Machine.

4. Richard Burton is the president of communist party of Russia.

5. Cecil Demille is a famous Pope.

6. Ramanujam is a Junior Tennis Player.

7. Chowdayya is a great hero of the world. The name of the beautiful word found in the ice cold countries — Inventor of Australia.

8. Astisha is a wrestling champion or famous foot-ball player.

9. Usha Sunderaraj is another wrestling champion and foot-ball player.

10. Rabindranath Tagore — Inventor of Telephones.

Can you guess examples of the following ?

1. Mammal that lays eggs :— Beast — Fish — Murgi — Ostrich, etc.

2. Indian State formed after 1970 — Bangla desh — Pondicherry.

If you want to make capital out of these, note the capitals of the following countries :

Countries.		**Capitals.**
1. Ceylon	—	Rangoon
2. Indonesia	—	Jineva
3. Nepal	—	Bhuttan
4. Tibet	—	Sikkim
5. Himachal Pradesh	—	Meghalaya
6. Nagaland	—	Maghdoot
7. Andamans	—	Minicoi
8. Haryana	—	Delhi

How if you want to hear some untold history, read the following :
Reasons for French revolution :—

1. It was taken place by the writing of Lenin. He used to publish good books.

Another reason is given in more detail !

The kings are Zaars in France. They had their own constitution which are very meanful and annoying to common subject. The some reason example.

1. The cattle will feed in the subjects fields without any restriction and they may dectroy crops tn their own accord.

2. King has got full right to decide about any matter without objection and kings decision will be final.

3. He has got full authority to shoot any bird or animals of his subjects for fun.

4. Every one should obey him and he is God.

5. The Kingship is the right of only king's generation.

These all made French to indulge in revolution.

Why Suez Canal is closed ?

"The north and South American goods were exported only through Suez canal by the ship. They refused to pay the money to cross the canal. So they closed and later they attained their goal."

Reasons for civil war in America ?

"The Zaar of Russia was attacked by a Red Indian when he was on his way with his wife and son. So the Russians became angry and they took war against them."

Another reason is Martin Luther King was as sassinated by Americans.

Another genius got so disgusted with general knowledge question paper that he wrote as follows :

Inventor of Penicillin — Rajesh Khanna

Inventor of Telephone — Hema Malini

Inventor of Australia — Your father !

ORCHIDS

R. S. EDIRISOORIYA,
1970—72 Rangers' Course.

What is an orchid?

It is a monocotyledonous plant bearing big, spectacular and delicate flowers that grows usually in steaming jungles. These plants come up in temperate and tropical countries. Temperate zone orchids are generally terrestrial, while most tropical orchids are epiphytic. Some orchids are very small, without conspicuously coloured or scented flowers that may not even be visible to the naked eye. On the other hand there is evidence that one single orchid in Matrurin, north west of Venuzuela, has encircled a tree upto 60′ above ground level. Orchids with nearly 35,000 species (hybrids included) comprise the largest family of flowering plants. They produce flowers once or twice in the year. There are some exceptions mostly among hybrids. Orchids prefer high-lands and grow on limbs of trees or bare rocks or on the ground sometimes even in water.

Rhizanthella gardneri grows entirely underground where it feeds on decaying organic matter. Orchid flowers are of various shapes. They may be just like bees, wasps, butterflies, swans, scorpions, frogs or even miniature men! Size, shape and colour also vary in orchids. Colours range from red, orange and yellow to green, purple, grey and rarely blue. Black orchids do not occur except in legends.

Most orchids require insects to pollinate them. A peculiar feature in orchids is that the pollen is in sticky knob-like masses called pollinia. Regene-ration is both by artificial and natural means. For large scale commercial planting artifical regeneration is very helpful. Dr. Lewis Kundson used a mixed formula of nutrients with agar and plain sugar and sowed orchid seeds. He was able to

get plantlets. Another French physiologist George Morel did some experiments with tissues from the shoot tip of *Cymbidiums* in 1956, and got new plants. Following him Michel Vacherot and Maurice Lecoufle obtained better results. Now let us see what these scientists have done to get new plants from tissues. They exposed excised meristematic tissues to rich nutrients. As a result the cells divide indefinitely postponing normal growth and forming cell-clusters that can be separated. These cell-clusters can then either be allowed to develop into normal plantlets or can be returned to the original solution to produce more undifferentiated cells. Plants grown by this method are supposed to grow faster than those grown by conventional methods.

Until the middle of the past century botanists had despaired of ever hybridising orchids. An English surgeon John Harris analysed the flower's anatomy and suggested how it might be done. Following him Gardner Jhon Dominif crossed two species of the genus *Calanthe* and obtained a beautiful new hybrid in 1856. Thereafter man could select desirable colours, size or other characteristics and breed orchids. Sanders' "Complete list of hybrids" says that there are about 35,0C0 hybrid crosses. Because of the high prices they fetch, many countries have taken steps to produce new hybrids. U. S. A., Malaysia, Singapore, and Srilanka are some of them. There are about 175 species native to Sri Lanka and many new beautiful hybrids have been produced from them. From Middlesex and New Jerey (U. S. A.) a quarter million blossoms of expensive *Cattleya* hybrids are being exported annually.

From the average grower's point of view these orchids can be divided into following types:

i Strap-leaved vandas:

These are erect plants with strap-shaped broad leaves. Flowers have a good texture and spikes have long stalks suitable for export.

Examples: *Vanda sandariana, V. suavis, V. tessellata*

In hybrids *Vanda manila, V. ellennoa, V. tatzeri*

ii Terete-leaved vandas:

Plants are erect, leaves are fleshy, more or less cylindrical.

Flowers have poor texture, not suitable for export.

Examples: *Vanda tetes, V. hookeriana*

In hybrids *Vanda agnes joaquin.*

iii Semi-terete vandas :

This is entirely a manmade group evolved by crossing strap-leaved and terete-leaved vandas. Here leaves are in between strap-shaped and terete.

Flowers have very fine texture with good keeping qualities. Some species are free flowering.

Examples : *Vanda josephine var. hero*-Free flowering
(V. teres + V. insignis)

V. marguerite maron
(V. teres + V. suavis)

V. tan chay yan
(V. Josephine var-hero + v. dearei)

The last one has been produced by back crossing a semi-terete form with a strap-leaved form.

iv Arachnis :

(Scorpion orchids)

This is a group of climbing epiphytic orchids related to vandas with scorpion-like flowers. Flowers with very good texture ; some are free flowering.

Examples : *Arachnis hookeriana, A flosaeris*

In hybrids, *Arachnis maggieoei*
(A. flosaeris + A. hookeriana)

v Arandas

Arachnis has been successfully crossed with vandas to produce hybrids called Arandas. These have long spikes consisting of flowers with narrow sepals and petals. Arandas are available in all colours of the rainbow and are tolerant of air travel.

Examples : *Aranda ruby pestana*
(Arahnis flosaeris + Vanda caerulea)

Aranda wendy scott
(Arachnis hookeriana + Vanda rothschildiana)

vi Renanthera

This orchid is used in crossing.

Examples : *Renanthera storiei, R. coccinea.*

vii Aranthera

This is a hybrid genus produced by crossing *Arachnis* and *Renanthera*

Examples : *Aranthera James storiei*
(Arachnis hookeriana + Renanthera storiei)

Aranthera mohamed haniff.
(Arachnis hookeriana + Renanthera coccinea)

viii Renantanda

Renanthera has been successfully crossed with *Vanda* to produce hybrids known as *Renantandas.* Flowers are orange-red with long branching spikes.

Example : *Renantanda ammani.*
(Vanda Josephine vanhero + Renanthera storiei)

xi Phalaenopsis

A less space-occupying and expensive variety. Even a medium-sized plant gives a fair number of flowers proportionate to the space used.

Example : *Dendrobium phalaenopsis.*

x Canes

Grows upto 6' feet height. Flowers are with twisted outer perianth parts.

Examples : *Dendrobium veratrifolium.*

D. ursula.

Orchids can be grown successfully under the following conditions :

Climate : The native habitat of all vandaceous orchids is the monsoon region of tropical south-east Asia and they need temperature found under hot lowland con-

ditions ranging from 80° — 85° F in the presence of circulating air, If other conditions remain unchanged they can tolerate higher temperatures.

Light: Strap-leaved vandas do not thrive well in full sunshine because their leaves easily suffer from sunburn. Therefore it is advisable to use light shade so that the plants receive about 50% — 60% sun-light. The colour of the leaf will indicate whether the plants are receiving the correct amout of sunlight or not. If the leaves appear dark green then the plants are receiving too much shade which will retard flowering. Yellowing will indicate too much sunlight and will result in sunburn. If the leaves are light green and healthy it is an indication of the correct amount of sunlight. Seedlings of strap-leaved vandas require more shade than those of terete and semi-terete vandas which will produce good flowers when grown in full sunshine. They should be exposed to full sunshine gradually. *Arachnis*, *Aranda*, *Aranthera* and *Renantanda* can tolerate full sunshine like semi-terete vandas. Their seedlings require shade.

Water and other factors: Good clear water must be available throughout the year. The land may slope evenly but flat land is preferred. The boundary must be well protected. It is also desirable to select a site which is not too close to jungle or heavy scrub as this makes it difficult to control pests and insects.

Planting: Planting can be done in pots or beds according to the requirement of the plant. Strap-leaved vandas are grown in clay pots or wooden baskets. These orchids have roots that travel long distances in search of moisture and plant debris. So plants should be shifted to larger pots as they increase in size. Perforated clay pots are ideal for this because they allow free access of air. The compost used have must be a mixture of well-burnt hard prices of brick or tile and charcoal. (see figure 1) In the process of potting a layer of rocks is placed over the drainage hole at the bottom of the pot. The plant with roots is placed in the centre of the pot and large brick pieces are added until the top layer consists of pieces of about one inch in thickness. Charcoal pieces are strewn among brick pieces. Depending on the growth of vanda orchid it may have to be shifted with larger pots every six to eight months until maturity. Plants that have grown too tall can be given a support or should be topped.

Bedding

Terete and semi terete vandas, *Arachnis*, *Arandas*, *Arantheras* and *Renantandas* are suitable orchids for beeding.

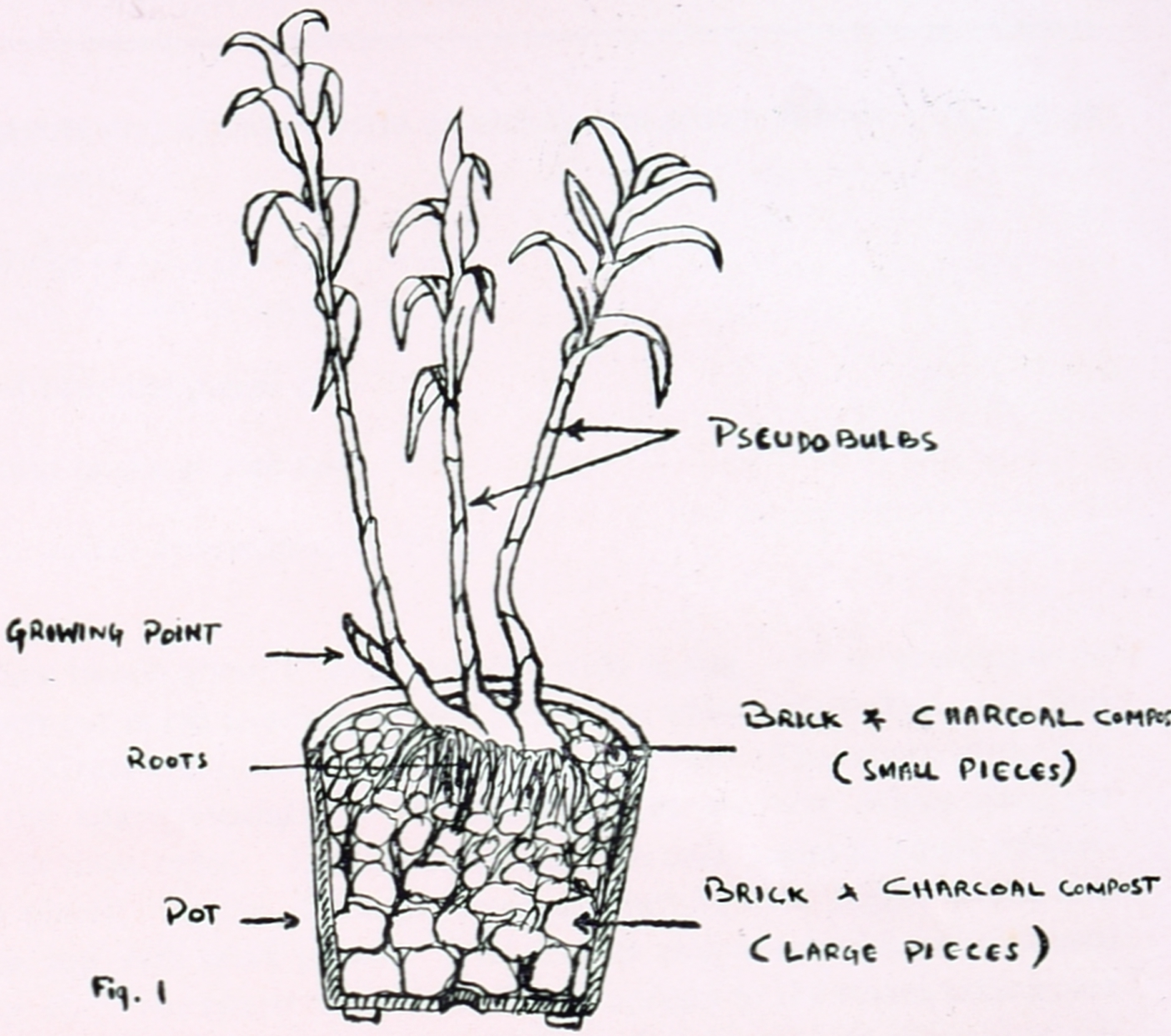

Fig. 1

STRAP-LEAVED VANDAS GROWING ON A TREE TRUNK.

Fig. 2

In Singapore and Malaysia acres of orchids are grown in beds. A bed is prepared as follows:

(1) Broken bricks or tiles (Pieces 1″ — 3″)
(Burnt clay is used in Singapore)

(2) Hardwood charcoal pieces 1″ — 3″

(3) Dry coconut husks or tree fern.

(4) Hardwood stakes approximately 3′ tall.

A shallow trench about 6″ deep and 35″ wide is dug, It is preferable to to have a trench cut north to south so that the plants when established may face East or West. Grass and other weeds should be removed The length of the bed depends on the space available. Hardwood stakes are now driven along the trench in two or three rows. Large brick and charcoal pieces in equal proportions are now placed over the drainage material starting with bigger pieces and ending at the top with small pieces. Tree fern or coconut husks are scattered over the compost. The plants are now anchored upright to the stakes taking care to bury only about two inches of the stem in the surface layer. In the case of tall scorpion orchids taller stakes may be planted 18″ apart. A horizontal trellis may be constructed to serve as a support. The usual espacement for orchids is 18″ × 12″.

Watering and feeding

Vandas and related orchids do not have pseudobulbs for water storage. They have thick leaves that perform this function in some degree, The aerial roots of vandas are capable of absorbing large amounts of moisture in a short time. Therefore, these orchids require frequent application of water. They grow throughout the year without a rest period and do not tolerate drying out. It is better to water plants in the morning to allow the leaves to dry off before night. Water left in the axils of leaves encourages bacterial and fungal infections.

Orchids are benefited by regular feeding with organic or inorganic fertilizers. Organic fertilizers like fish emulsion or liquid cattle manure can be used where vandas are grown outdoors. Inorganic fertilizers like Hyponex 20–20–20 is recommended both in outdoor and pot cultures. The method of preparing

cattle manure (liquid) is to soak fresh cowdung in a bucket to form a thick liquid and keep it covered for a week. The seasoned manure is diluted at the rate of one part of manure to ten parts of water before application. Organic fertilizers are not suitable for seedlings. Inorganic fertilizers like Hyponex may by applied to plants every one or two weeks between heavy waterings. A solution is prepared by dissolving one teaspoonful of the fertitizer in one gallon of water. Young seedlings are fertilized once in a week using half the strength while established seedlings may be given the full strength of the fertilizer.

Here are some points to keep in mind when applying fertilizers. They should be applied only under conditions of good light and when plants are in active growth. Plants must not be fertilized during gloomy weather or during prolonged rainy spells. The pots must be thoroughly flushed with water in between feeding so as not to accumulate excess salts which can be injurious to the roots.

Propagation

Raising by seed involves two processes ; hybridisation and germination of seeds, which need some technical skill. In the process of crossing or pollination, pollinia of the plant (male parent) are removed and inserted into the stigma of a female parent. Pollinia are found on the tip of a column enclosed by a cap. They will adhere to a pencil point or match stick when upward pressure is applied to the cap. The Stigma is found below the tip of the column as a semi-circular cavity. The pollen masses or pollinia must be removed from the female plant before pollination to avoid selfing. If the pollination is successful the stalk of the flower containing the ovary enlarges to form the young seed pod. Seed-pods of vandas and related orchids take about seven moths to reach maturity. As soon as the pod has turned yellow it should be picked and the seeds collected on a tissue paper. They are kept in a desiccator or refrigerator if sowing is not done immediately.

Seeds should be sown in the following " Kundson's C " culture medium.

Calcium nitrate	1.00 grams
Ammonium sulphate	.50 ,,
Magnesium sulphate	.25 ,,

Potassium biphosphate	.25	,,
Ferrous sulphate	.025	,,
Sucrose	20.0	,,
Agar	17.5	,.
Distilled water	1000 c. c.	

The chemicals are weighed separately and dissolved separately in distilled water which is made up to 500 cc. The agar is added to this solution and it is boiled until the agar is completely dissolved. Sucrose is dissolved in balance 500 cc of water and it is added to the agar mixture while it is hot. Then the solution is well stored. The pH value of the solution is tested and adjusted within 4 8—5.2 by adding decinormal hydrochloric acid or sodium hydroxide.

The solution is now portioned out into seven (7) conical flasks. (250 cc flasks can be used). These flasks are stoppered with cotton wool plugs and sterilized in an autoclave under a preesure of 15—20 lbs. per sq. in for 20 minutes. A high—dome pressure cooker can also be used for this purpose, The medium is allowed to set overnight before sowing the seeds.

The seeds are sterilised in a solution of bleaching powder made by shaking 5 grs. of powder in 70 ce. of distilled water in a flask. The solution is filtered and a small quantity of this liquid is put into a small bottle and the seeds are vigorously shaken in this for about 10 minutes.

Sowing seeds is carried out in a sterile cabinet with two holes on either side to allow the worker to handle equipment inside the cabinet. The cabinet is made sterile by spraying rectified spirit.

In the process of sowing seeds a platinum inoculating needle is sterilised in a spirit flame and as it cools, a amall quantity of seeds is introduced into the culture medium from the bottle. The flask is immediately stoppered with the cotton wool plug, flamed and daubed with a 2% solution of mercuric chloride. It is now kept in an airy spot near a window. If sowing has been successful a green colour appears on the surface of the medium 3—4 weeks after sowing.

When the seedlings have developed roots they are removed from the flask by means of a wire loop and are washed in slightly warm water to remove agar. Then they are allowed to dry off on a blotting paper and are planted in seed pans. These pans are kept in an enclosed space under subdued light where the daytime humidity is maintained around 70 %. Watering should be done with great care. Water remaining around the seedling in the night could cause damping off.

Vegetative Propagation

All orchids which have grown too tall can be topped easily. The tope preferably with three to four roots can be potted or planted as new plants. The cut ends should be sealed with waterproof fungicide and a sealing compound like "Santar A". All climbing acorpion orchids are easily propagated from terminal cuttings. These may be 1½'—2' in length and are removed with a few roots.

Pests and Diseases

Cockroaches are common pests which chew off roots. By applying chlordane or D. D. T. this can be stopped. Red spiders and false spider mites are reddish-brown, white or yellow minute insects which feed on the underside of vandaceous orchids. They suck the plant leaving white spots. This can be controlled by spraying water dispersible sulphur preparations like "Thiavit" (one ounce in two gallons). Larvae of beetles or wasps are very destructive. They bore through the shoot tips destroying the apical bud. Pests are difficult to control because insecticides do not reach the inner tissues where larvae feed. D. D. T. 50%, one ounce in two gallons, can sprayed as a control measure. Scale insects sometimes suck the sap in the leaves. "Malathion" (one ounce in 4 gallons of water) or Diazinon (one teasponful in 2 gallons of water) may be sprayed, Slugs and snails can be controlled by giving poisons like 'meta' mixed with rice bran. Crown rot is a very serious disease particularly in strap-leaved vandas. It starts in the crown of the plant at the base of the leaves destroying the growing point. The leaves become discoloured and fall off. The discoloured leaves must be removed. All infected tissues are removed and the plant is sprayed with a fungicide like

"Thiotox". Watering is done only at the roots. Damping off is a disease which affects seedlings. Diseased seedlings must be removed as soon as a brown discooloration is noticed. Healthy seedlings are sprayed with a fungicide like "Thiotox".

Some Special Orchids

The Angthong lady's slipper occurs only in a tiny island off the galf of siam. Its parent orchids were the snowy lady's slipper and the Godeproys lady's slipper which were found in the mainland long ago. Wind might have carried the seeds to Angthong to produce this species. Grey orchids are found only in Ceylon. They came up in the north western province.

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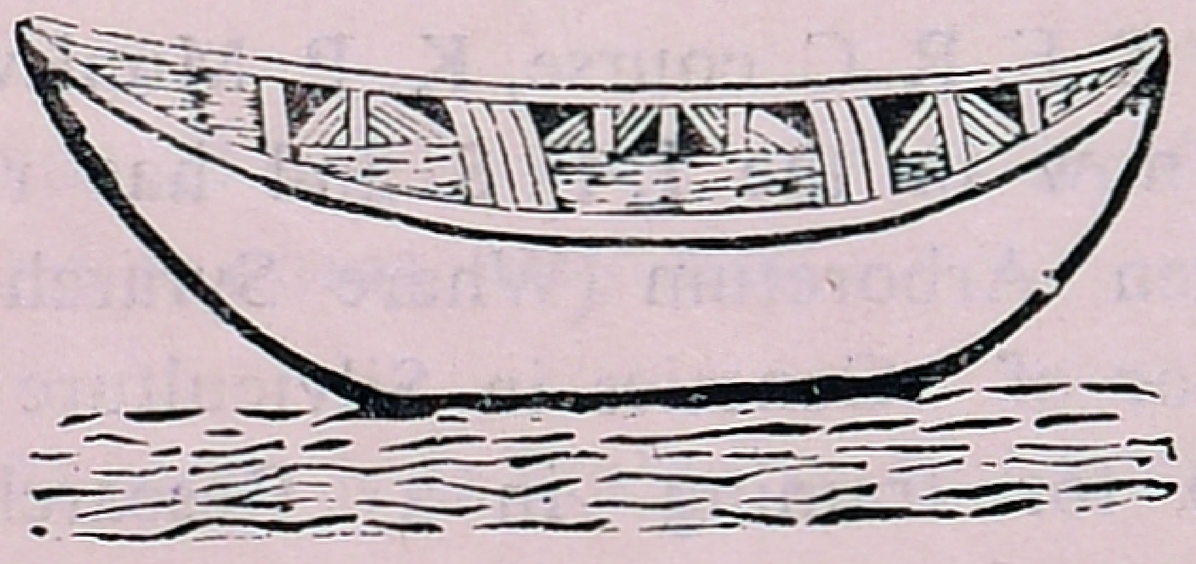
National Geographic vol: 139—1970

Tropical Asia

Agriculture Department of Ceylon.

Orchid circle of Ceylon.



ALUMNI CORNER

(**Editor's note**:- As already pointed out in the Editorial, we have received very little information about past alumni from our recently enrolled Associate Members. This column has therefore necessarily been compiled on the basis of contacts made in the course of our tours, and bits of information about old students of the college gathered from the present batches of students. In publishing this " Alumni Corner ", we redeem a small promise made to the Associate Members of the southern Forest RangersCollege Association. The old boys of this college are enrolled as such since October, 1970. The bonds between the teachers and the taught are ever so strong and ever so unforgettable. Many a momory of their doings in the years here comes alive in the minds eye when news of their exploits in their careers reaches us. We shall cherish these bonds and these memories. And the constant flow of news from and about our old boys will help us in the task. It was in that spirit and hope that this corner was conceived. We also hope that all old boys will remit the concessional rate of Rs.3/— and ask for their copies of the Southern Forest Rangers College magazine.)

From the 1957-59 S. F. R. C. course, K. P. Muniswamy (Andhra Pradesh) who secured Honours is now in the I. F. S. and has returned after one year training in the Copenhagen Arboretum (Where Syrarch Larsen the father of Forest Gentics and author of ' Genetics in Silviculture ' worked). He awaits a deputation to Rome for training in a Research Institute of fame. L. G. Kulkarani is back at the Southern Forest Rangers College this time as a member of the College staff after a spell of service in Napal. We weleome him in our midst. G. V. Joshi is Assistant Silviculturist at Poona. Samraj is with the Central Soil Conseveration Board at Ootacamund Centre. He took the present seniors on tour around the centre and explained its working with vigour and competence.

1960-62 K. A. Kushalappa (Mysore) is now in the I. F. S. and abroad in Edinburgh. Other alumni from Mysore who underwent training at the Indian Forest College and are now Divisional Forest Officers are G. D. Hullur, K. T. Ganapathi and R. M. Palanna.

1963-65 A. Mahajan (Maharashtra) is at the Allapalli Central Depot after spells of service in the Pre-investment survey at Jagdalpur and at Pedigundam range in Allapalli division.

1964-66 Ch. Muralidhara Rao (Andhra Pradesh). an Honours student, is now in the I. F. S. as District Forest Officer, Atmakur division.

V. Sambasivam (Tamil Nadu) is at Chengam in Tirupattur division. He has shown a flair for detection of offences and plantation work.

C. M. Salve (Maharashtra) is an Instructor at the Shahapur training school for guards.

R. S. Raghuvanshi (M. P.) is at Nagri in South Raipur division. It was a pleasure to meet him on tour.

M. S. Dubey underwent logging training at Dehra Dun and is now at South Betul. M. L. Dixit is at Indore after undergoing logging training at Dehra Dun. He was involved in a motorcycle accident but has recovered and is doing well. S. P. Dixit is now at Harda and is the father of three children.

1965-67 R. G. Alurwar (Maharashtra) is at Asaralli range in South Chanda division, following a spell of service in the Taroba National Park.

1967-69 Y. P. Dixit (M. P.) is on the verge of entering married life. Posted at West Betul and is doing very well.

G. Rangaswami (Mysore) is at Malur in Kolar district.

S. Manjunath is at Devanahalli near Bangalore. It was pleasent meeting him on our tour.

W. C. Dawre (Maharashtra) gave a good account of himself in the mobile squad and is now in the working plan division at Aurangabad.

Rangaswamy (Tamil Nadu) is now at Ayyalur in Madurai North Division and has married recently.

1968–70 Noor Ahmed and Sudhakar Rao (Andhra Pradesh) are in the Coffee plantation division of Vishakapatnam Circle. It is unlikely that they play tennis now!

From Tamil Nadu A. Chinnaswamy is Research Range Officer at Ootacamund. He was previously in the Point Calimere Wild Life Sanctuary.

Sankaran is in the Government Rubber Plantations. Remember what a fine granny Sita he made, on '70 Association Day! We wonder whether these talents are bottled up now. Deepalingam is in the Tea Project (Nilgiris) and it was a pleasure to see him on our visit to Kotagiri. V. R Periaswamy is Research Range officer at Denkanikotta. Agasaveeran is in Ambasamudram after a short stint at Kodaikanal.

Varadarajan is Farm Forestry Range officer at Chengam. Velumani is in the Tea Project, Tamil Nadu obviously believes in the ability of youth for work in research, plantation projects and wild life! Does Velumani have time for another fling at the I. F. S. examination, we wonder. From Maharashtra, S. B. Gupta has had to face local opposition at Ahmednagar in executing a grass-land afforestation scheme, and has emerged with flying colours. Anil Thakre, remembered for his abilities as a pace bowler, is R. F. O. in Yeotmal division. (We would like to know if there is cricket at his station). From Mysore, C. A. Devraj, Gopalakrishna and M. B. Srinivasa are all in working plan divisions, Devaraj and Srinivasa at Mysore and Gopalakrishna at Bangalore. Gopalakrishna continues buoyant as ever, the slick, smooth, behind-the-scenes organiser.

1969–71 K. K, Sharma (M. P.) was R. F. O. at South Mandla division when we met him on our tour. He was expecting to marry shortly and is doing well in the department. Is much more "mod" in appearnce now than he ever could be in S.F.R.C. (except perhaps when he acted as the effeminate here in the English play on Association Day)! He wrote to us extending an invitation to the SFRC-with his wonted warmth, we need hardly add-to visit the Kanha Sanctuary, the only place in India where you can meet tigers by appointment. We hope to avail of the invitation in the future. S. K. Khatri (M. P.) has recently been transferred from Bori to Itarsi. Running into M. C. Chaturvedi and M. Ramachandran (M. P.) (of Gulliver fame) at Nagpur while on tour was a pleasant surprise. Chaturvedi, noted for his cricketing explolits here, was at Chindwara and has recently been

given charge of Chowrai range. He will be marrying shortly. One cannot blame him for not playing cricket after this! We would love to hear what games Chaturvedi and Khatri play now!

A. Dubey (M. P.) has given a good account of himself in detecting timber smugglers in North Mandla. No news of that other veteran, Mahawadi. Do any more Lincolns come off his versatile pen, we wonder.

I. Timbah (Malaysia) is now D. F. O. at South Sandakan, Shah in East Malaysia. We remember him for his quite sense of humour and courage in facing indisposition, also for his earnestness in studies, as well as in the sports field. What a standard he set for foreign scholars!

From Mysore, Beera Moideen has been deputed to Dehradun for aerial survey training. K. Rangaswamy is at Puttur as R. F. O., Rubber division. Abdul Ravoof is R. F. O., Kalsa range, in Koppa division. M. N. Sanu is in one of the ranges of the Rubber Circle at Mangalore. K. P. Diwakar is in working plans at Belgaum. Have tennis clubs at Belgaum benefitted, we would like to know. Sadhani is in the Anti-Sandal Smuggling squad at Shimoga. Not for nothing did he develop his muscles in the S. F. R. C. gymnasium. Nagaraja is also in rubber, as R. F. O. at Puttur. Thimmiah is in Bangalore in the working plan Forest Survey division. No more marathons for him, at least till he gets into the anti-smuggling squad. Maddodi is in working plans at Mysore. Mysore, like Tamilnadu, seems to believe in youth for planning and elasticity (rubber)! It was most pleasent meeting Thimmiah, Maddodi and M B. Srinivasa on our recent tour.

It was with much happiness that we met several old students of this most recent of batches, from Maharashtra, in Allapalli and neighbouring forest areas. Contrary to general expectations, and general trends elsewhere, we found these young rangers looking more streamlined (markedly slimmer in some cases! than in their S. F. R. C. days and involved in arduous work. There was Shinde, looking thinner but smart as ever. Another was S. G. Raoot in Bhamragarh, 80 km. away from Allapalli. He is cut off from the outside world between June and January, but has to visit Allapalli at least twice a month. Essential commodities including food have to be transported by cycle over long distances. P. M. Bhosekar was also living in the heart of the forest, several miles from Allapalli and fending for himself to the extent of living in a labour line and cooking his own food, as were several others! Others of the 1969—71 Batch

whom we met at Allapalll were M. A. Potey (looking much slimmer), D. A. Samant, V. D. Rakhe, Ganbavale, U. A. Naik and Umrani. Rakhe is now at Dharni as Wildlife officer. Samant and Potey are on special duty in Allapalli division. Chandnani and Pansare are in working plans at Chanda. Bhusari and Kadu are in Forest Cooperative societies in Central Chanda and West Chanda. A. G. Mahajan has married recently and is Working Plan Rang Gfficer in Chanda. S. Y. Gawade is at Ravar in Nasik Circle. Salunke is at Dhanora in East Chanda. No smuggling there for him to demonstrate his muscle power. Fahim Mahmood until so recently a student, is now Assistant Instructor at the Guards' training School, Chikhaldhara. Does he head a cricket team there? All of them remember the days of their training in S. F. R. C. with nostalgia and affection. We have no doubt that their (relatively) tough baptism in service will equip them with a spirit of dedication. The remotest interior holds no dread for them. Fine tradition builders for S. F. R. C., these are.

Legend has it that Coimbatore's strange genius Shri G. D. Naidu has his own standard for "hire and fire". His employees and students have to quit the moment their waist line crosses a certain limit set by him at the time they enter his employment or join his training school hostel. He is said to hold with fanatic faith that a bulging waistline is the surest index of indolence and lethargy. We know, of course, the converse is true. Remember Saidu and Kamara, the latter in particular and how they shed their surplus pounds as fast as (or was it faster than?) they acquired knowledge! By these standards, our boys at Chanda and Allapalli come off with flying colours. Let as confess right here that paunches and potbellies, hold no fascination for us at any time: and when these take shape in the year after leaving S.F.R.C, what further proof do we need that they are relaxing on their oars! Neither 'Mens Sana' nor 'Corpore Sano', we are willing to bet! So, potbellies, beware!

From Tamil Nadu, Kandakrishnan and Thirugnanam are in Research at Rameswaram and Vridhachalam, respectively. Kandakrishnan has no fuel coupe surveys to bother him at least for the present. It was a pleasure to meet them on our recent tour. A Chandran is in working plans, Nilgiris, at Ooty. We wonder whether Ooty has a good enough football field. T. Pandian is at Kulasekharam in Rubber, Nagarajan is at Trichy as R. F. O., Padugais. Noor Mohamad is in Nelliyalam division of the Nilgiris Tea Project and Krishnamurthi is F. R. O., Kannivadi range in Madurai North Division.

LEAVES FROM THE COLLEGE DIARY 1971 – '72

(21—10—1971 to 20—10—1972)

26—10—71 Officers of the Southern Forest Rangers' College and Forest Research Centre gave a farewell tea party to the outgoing student trainees of the 1969—71 course. The function was enlivened by a programme of entertainment.

27—10—71 The college celebrated Wild Life Day. Mr. G. K. Devarajulu Managing Director of South India Viscose, presided. Topical skits and other forms of entertainment were provided by many schools and colleges in Coimbatore and other places in the district. Mrs. C. Visalakshi, Chief Educational Officer, distributed the prizes.

30—10—71 The juniors (1970–' 72 course) gave a dinner to bid farewell to the outgoing Seniors of the 1969-71 course.

31—10—71 The Annual Convocation was held to mark the successful completion of training by Ranger students of the 1969-71 course. Mr. S. A. Hejmadi, I. F. S., Deputy Inspector General of Forests, Government of India, New Delhi, presided over the function.

1—11—71 The 1971-73 course began.

5—12—71 The college won a cricket match in the 'C' Division league against Friends' Club 'B' by 7 wickets.

24—12—71 The Annual Marathon Race was held. C. S. Sharma of the 1971-73 Rangers' Course came first covering the 13 Km. stretch in 50 minutes and 49 seconds.

1—1—72 Museum week commenced.

3—1—72 The Seniors (1970-72 course) gave a dinner to welcome the Juniors (1971-73 course). The dinner was followed by impromptu entertainment in which the Seniors attempted to test the Juniors' resources of good humour.

8—1—72 The juniors left on their first tour, consisting of camps at Bennari and Sadivayal.

9—1—72 The Seniors left headquarters to commence their tours from Nilambur and Makut camps.

22—1—72 The juniors returned after their first tour, the wiser for their initiation.

24—1—72 The Seniors returned to headquarters after their camps at Nilambur and Makut.

6—2—72 The college won an exciting cricket match in the 'C' Division league against Friends' Club 'A' by 14 runs.

20—2—72 Sports Day. The college celebrated its annual athletic sports. LCDR T. P. Nair, Officiating Commander of I. N. S. Agrani presided. Mrs. Nair distributed the prizes. Frederick Liew of Malaysia repeated his performance of the previous year, winning the individual championship comfortably.

27—2—72 The Seniors left on their tour of Maharashtra, Madhya Pradesh and U. P. (camps at Allapalli, Dehra Dun, Agra and Nagri.)

2—3—72 The Juniors left on their second tour with camps at Ariankavu, Asaripallam, Lower camp (Gudalur) and Kodaikanal-

27—3—72 The juniors returned after their second tour.

3—4—72 The Seniors returned after their tour of the northern states.

24—4—72 The Seniors left on tour for Ootacamund. The camp is intended for an exercise in road alignment and forestry excursions in the Nilgiris. The Juniors left on tour for Topslip. Survey Practical Examinations and an Orienteering exercise are conducted during this tour.

26—4—72 The juniors were given an exercise in Orienteering at Topslip. Saraf and Kandaswamy came first, covering an approximate distance of 5 Km. in one hour and 53 minutes.

7—5—72 The Juniors returned from their tour.

9—5—72 The seniors returned from their tour. Survey Examination for Junior.

29—5—72 Practical classes in Forest Pathology were held for the B. Tech. (Forestry) students from the University of Calicut.

3—6—72 The Principal left for Dehra Dun to attend the Liaison meeting and Symposium.

27—6—72 to 3—7—72 Students of both Seniors and Junior courses came up against their first series of the annual hurdles: the final examinations in Utilisation II, Office Procedure and Accounts, Wild Life Management and Forest Protection (for Seniors); and in Utilisation I, Soil Science, Geology and Physiography (for Juniors).

9—7—72 The Principal left for Dehradun to attend the Convention of the National Committee on Science and Technology.

19—7—72 Liew and J. G. Shahoo won the tennis doubles beating K. Prabodha and V. S. Bhonsle.

20—7—72 Frederick Liew of Malaysia won the Fischer Cup for Tennis Singles with an easy victory in two stright sets over V. M. Pawar.

23—7—72 Asif Ali Khan (1971—73 course) won the Table Tennis Singles Tournament. The runner up was V. K. Johri (1971-73 course).

26—7—72 Much interest and fun was generated by holding the Annual Quiz competition, in which Group IV consisting of M. R. Mutgi, J. G Shahoo, H L. Joshi, and K. C. Chacko won the first prize.

28—7—72 M. A. Ali won the badminton (shuttle cock) singles. V. M. Pawar was again the runner up. The final match was noteworthy for the high standard of badminton displayed especially by the winner.

28—7—72 Students exhibited their wide range of musical talents in the fields of both vocal and instrumental music. Outstanding performers were singers H. S. Tomar and S. A. Mateen and instrumentalists H. L. Joshi (tabla), H. S. Tomar (harmonium) and U. K. Parashar (harmonica).

30—7—72 Finals of several indoor games tournaments were completed. C. M. Ahmed won the carroms singles. A. G. Piyasiri was the runner up C. M. Ahmed and K. Radhakrishnan won the carroms doubles, beating A. R. Mansoori and N. N. Janbandhu. R. K. Mishra became the "Bobby Fischer" of the College, winning the chess championship. T. K. Bhattacharya was the runner up.

31—7—72 The Annual Elocution competition of the college was held. H. L. Joshi won the first prize; P. S. C. Bose won the second prize and J. G. Shahoo the third prize.

2—8—72 T. K. Bhattacharya and A. A. Khan won the Table Tennis doubles. F. Liew and P. O. Shah were the runners up.

3—8—72 We won a volleyball friendly match against Government College of Technology.

4—8—72 The college celebrated its Association Day. Mr. J. Shivakumar, IAS Collector of Coimbatore District, presided. The students presented a variety entertainment programme of skits, dances and music. Mrs. Mahmood Husain distributed the prizes.

6—8—72 SFRC beat Government Polytechnic in an Inter-collegiate Volleyball match.

We also won two football matches convincingly during the first week of August, against the Agriculture College and the Government College of Technology.

10—8—72 The Seniors left for Bangalore on their final tour, a feature of which is the Field Engineering training course at Bangalore bythe M. E. G. Forestry excursions are also conducted from camps at Bangalore and Mysore. The Juniors left on their fourth tour, featuring visits from camps at Neyveli, Arimalam and Rameswaram.

25—8—72 The Juniors returned from their tour.

31—8—72 The Seniors returned from their tour.

8—9—72 SERC beat Government College of Technology in an Inter-collegiate basketball match.

9—9—72 Won a friendly cricket match against Tatabad Cricket Club by 5 wickets.

16—9—72 Inter-collegiate Elocution and Essay competitions on Wild Life were conducted. In the elocution competition the subject of debate was whether major wild life zones in our country would gain by control from the centre S. Krishnakumar of Government Arts College won the first prize. P. Sundaram (G. C. T) and K. S. Venkatachalam (C. I. T) won the second and third prizes.

In the Essay competition the topic was the adequacy of measures to conserve wildlife. Miss J. Meera of P. S. G. R. Krishnammal College for women won the first prize. Miss S. K. Jayalakshmi of the same college won the second prize. K. S. Purnaiah (SFRC) won the third prize.

6—10—72 The college disinguished itself in the Inter-collegiate Hockey tournament, entering the final with a 2-1 win over C. I. T.

7—10—72 to 21—10—72 Final examinations. For the Seniors, the last series of hurdles consists of Silviculture, Management, Botany, Engineering and Law. For the juniors, the stepping stones to the second year are Silviculture, Mensuration, Botany, Engineering and Soil Conservation and Land Management.

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I, A. M. Mahmood Hussain, hereby declare that the particulars given above are true to the best of my knowledge and belief.

(Sd.) A. M. MAHMOOD HUSSAIN,
PRINCIPAL,
Southern Forest Rangers College,
COIMBATORE.

Appeal

The next issue of the Southern Forest Rangers College Magazine (1973 issue) is due for publication in October 1973. Forest officers (both retired and serving) and the present students of the College are cordially invited to contribute articles in English on any interestin topic under Forestry, Wild Life, Shikar, reminiscences, adventures, anecdotes, personal observations or experiences in the profession having a bearing on forestry. Preference will be given to articles contributed by professional foresters who from the alumni of the college. Articles should preferably be typed with double spacing on one side of a foolscap paper leaving a margin of 1½" and should be accompanied by summaries. If there is sufficiant number of qualified articles contributed either by the students of the College or Associate members forming alumni of the College, prizes will be awarded for the best article and the largest number of articles published in the Magazine. Cartoons, drawings and caricatures, are also welcomed for publication. These will have to be drawn on thick drawing paper with no pinholes or scratches or rubbings.

As in this issue it is proposed to devote a few pages for publishing the professional and personal achievements of associate members who form part of the Alumni of this College. Interesting developments about the associate members may please be communicated to the Editor well in time for publication in these columns.

Contributions for the 1973 issue of the Magazine should be sent to the Editor, Southern Forest Rangers College Magazine, Coimbatore - 2, so as to reach him before 15th August 1973. The Editorial Board will further appreciate it if more contributions are received from the alumni of the College and if this appeal is given wide publicity.

HONORARY EDITOR.

OBITUARY

HAJI S. MAHMOOD KHAN SAHIB

With profound regret, we record the demise of Haji S. Mahmood Khan Sahib of Sathyamangalam on 7—12—1971. The College is deeply indebted to him for his manysided role - a philanthropist and donor of the College prize for the best student from Mysore and Tamil Nadu States, an unfailing participant in the annual Convocation function, and above all a well wisher who kept a special corner of his generous heart for this College.

Barely five weeks before his demise, the last annual Convocation took place on October, 31, 1971 and there he was with his venerable presence, his usual warm and affable greeting for every one, ailing in body already but not in spirit.

His generous enthusiam found a notable vent in his capacity as Vice-Chairman of the Southern India Education Trust, Madras, which grew from small beginnings into a mighty institution in the field of women's education with over 4,000 students, in little over a decade.

Haji Mahmood Khan Sahib was largely a self-made person who rose up in life due to his ability and business acumen and hold over the hill tribe population. In his passing away, the Southern Forest Rangers College has lost a valued friend and benefactor.

(A. M. MAHMOOD HUSAIN)

THE SOUTHERN FOREST RANGERS COLLEGE MAGAZINE

ANNUAL JOURNAL OF FORESTRY, SHIKAR AND TRAVEL

The Magazine now forms a section of the Southern Forest Rangers College Association. The Editorial Board has been reconstituted and the Management Rules revised in terms of the Rules of the Association.

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MANAGEMENT RULES:

1. **Life Membership**: Rs. 200/- or more.

2. **Associate Membership**: Past Students of the College are eligible to be enrolled as associate members of the S. F. R. C. Association on payment of Rs. 25/-. The associate members are entitled to receive a copy each of every issue of the Magazine on a concessional rate provided advance intimation of their requirement is sent to the Joint Editor, to reach him before 1st of July every year.

3. **Subscription**: Subscriptions shall be for an year from November to October as follows:

For Officers drawing a salary of Rs. 100/- and above Rs. 4/- per annum.
For Officers drawing a salary Less than Rs. 100/- Rs. 3/- per annum.

The Editorial Board is authorised to revise the rate of subscription from time to time. The subscription should be sent in advance or paid by Bank's Order system to the Joint Editor, Southern Forest Rangers College Magazine, R. S. Puram P. O., Coimbatore-2.

Ordinarily the Editor will inform the members three months before the expiry of the subscription. If no intimation is received by him regarding continuation or otherwise of the membership, the next issue will be sent by V. P. P.

4. **Correspondence**: Correspondence regarding subscription, advertisement and other financial matters should be addressed to the Editor, Southern Forest Rangers College Magazine, R. S. Puram P. O., Coimbatore - 2.

5. **Advertisement Rates**: Advertisements will be charged for at the following rates per insertion per issue for block ink printing on ordinary paper. These revised rates will be applicable for the current issue of the magazine onwards:

Full Page	...	Rs. 60=00
Half Page	...	Rs. 40=00
Quarter Page	...	Rs. 30=00

The rates are liable to change without notice and are exclusive of block, etc. which will have to be supplied by the advertisers themselves. For advertisements on back cover, inside back cover or facing editorial page 35 % extra will be charged. For advertisements with 2 color printing on back cover an additional 50 % extra will be charged. Advertisement charges should be paid in advance by

cheque or draft on any recognised bank in Coimbatore, preferably the State Bank of India, Coimbatore, Tamil Nadu. The advertisement matter should be type written in block letters or italics, and should always be sent in duplicate well in advance. Proof of the advertisements, if required must be asked for at the time of placing the order. Only one voucher copy is supplied generally. If more than one copy is required the additional copies will have to be paid for at prevailing prices.

Over all size 9″ × 7″. Printing area Full page $7\frac{1}{4}$″ × $5\frac{1}{2}$″.

For further details please apply to the Editor, Southern Forest Rangers College Magazine, R. S. Puram P. O., Coimbatore - 2.

6. **Contribution of Articles**: Contributions should be sent to the Editor.

The Editorial Board will not be responsible for the opinions expressed in articles, notes, letters etc other than the Editorial. The Editorial may not be the opinion of the Editorial Board.

Articles connected directly or indirectly with forestry will be accepted. Articles on other subjects can be considered according to their utility and the space available,

Articles should be legibly written in ink or preferably typed with double spacing on one side of foolscap paper leaving a margin of $1\frac{1}{2}$ inches, and be **accompanied by summaries.**

Contributors are requested to give their contributions and clearly state their name, place of residence and occupation.

7. **Reprints**: Contributors can be supplied free of cost TWELVE reprints of their articles with any illustrations, provided the articles are two pages or more in length and the Editor is informed, Contributors desiring extra copies should intimate the Editor the number of copies required. They will be charged the actual expenditure incurred on them.

8. **Payment**: No payment will be made for contributions to the Southern Forest Rangers College Magazine.

9. **Free Membership**: The Magazine offers free membership of ONE YEAR ONLY, to any contributor, other than the students of the Southern Forest Rangers College, who contributes the largest number of accepted articles to the Southern Forest Rangers College Magazine.

10. **Prizes**: The following prizes will be awarded annually to the students of the Southern Forest Rangers College:—

(a) for the best articles, adjudged by a special committee constituted for this purpose, published in the Magazine.

(b) for the largest number of articles published in the Magazine.

The Special Committee shall consist of:

(i) The President, F. R. I. and Colleges, Dehra Dun. (ii) The Principal, Southern Forest Rangers College, Coimbatore and (iii) The Editor, Southern Forest Rangers College Magazine.

Alumni of the College who get controlled as Associate members are also eligible for the award of the above prizes as per rules.

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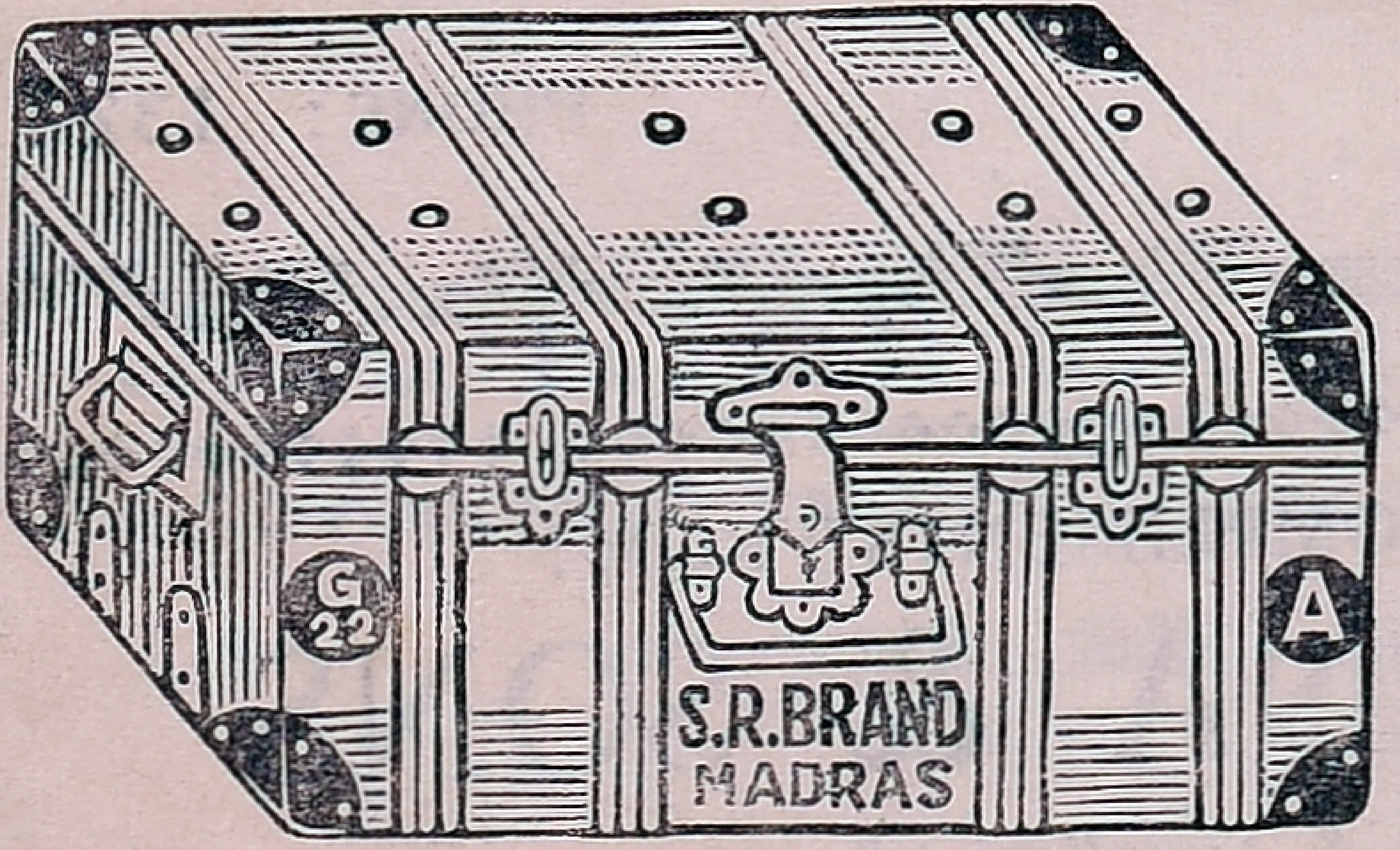

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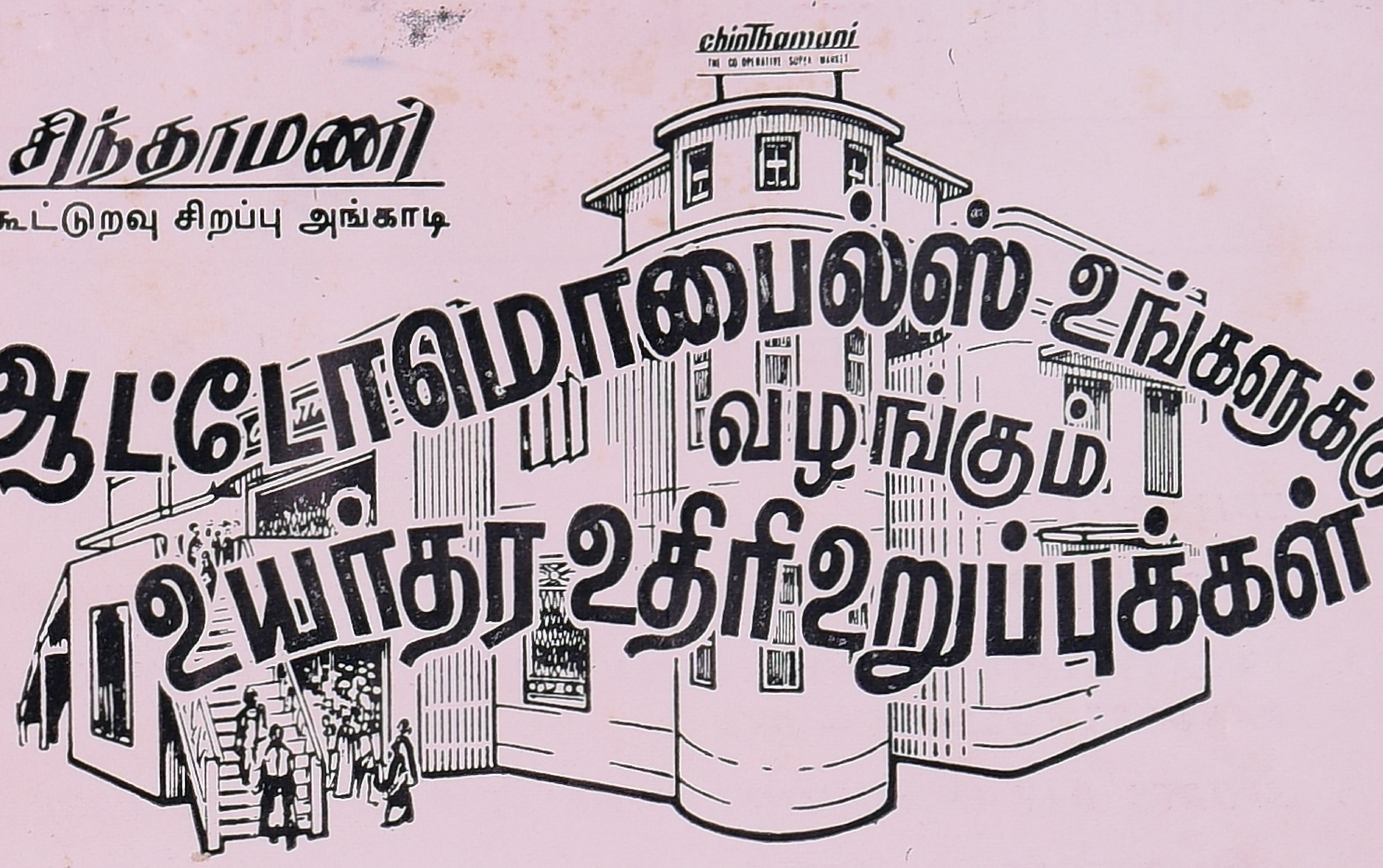
சிந்தாமணி

கூட்டுறவு சிறப்பு அங்காடி



ஆட்டோமொபைல்ஸ் உங்களுக்கு வழங்கும் உயர்தர உதிரி உறுப்புக்கள்

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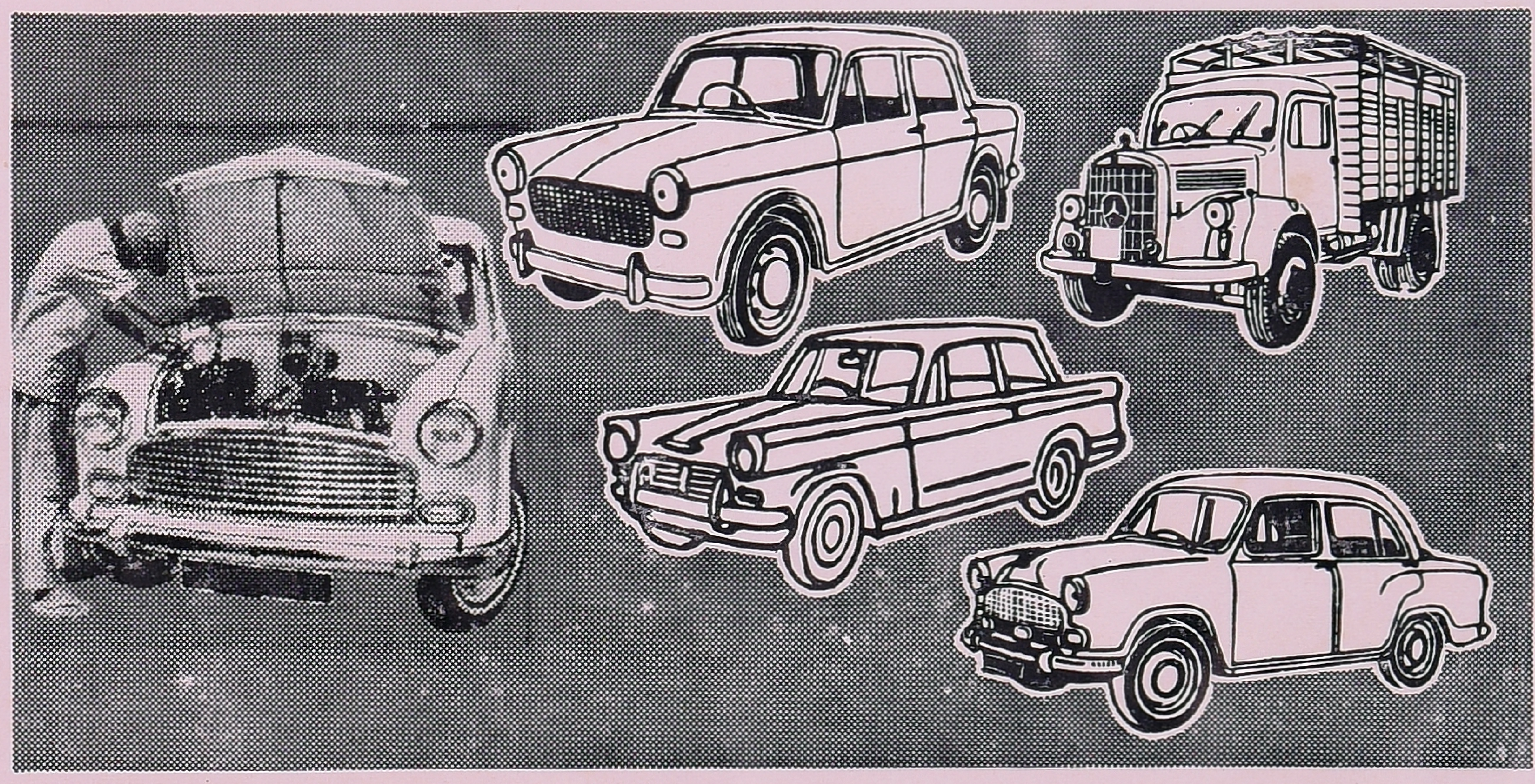

உங்கள் மோட்டார் வாகனங்களுக்கு பொருத்தப்படும் உதிரி உறுப்புக்கள் வலிவு, பொலிவும், மற்றும் மலிவோடு விளங்கி நீடித்து உழைக்க நீங்கள் நம்பிக்கையோடு வாங்க சிறந்த இடம்

சிந்தாமணி

ஆட்டோ ஸ்பேர்ஸ்

வடகோவை

எல்லாவித கார் மற்றும் லாரி பாட்டரிகள் மிகச் சிறந்த முறையில் குறைந்த கட்டணத்திலும், குறித்த காலத்திலும் சர்வீஸ் செய்து தரப்படும்.

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